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Original Articles

PULMONARY LESIONS DISCOVERED BY MASS ROENTGENOGRAPHIC SURVEY 943
Dumont Clark, M.D., Carl W. Tempel, M.D., and Kenneth D. A. Allen, M.D., Denver

IMMEDIATE CHOLANGIOGRAPHY 951
R. Franklin Carter, M.D., and Lee Gillette, M.D., New York

ACUTE NONSPECIFIC BENIGN PERICARDITIS 954
Elwyn Evans, M.D., Orlando, Fla.

LIPOMELANIC RETICULOSIS 957
Clarence M. Agress, M.D., and Harold C. Fishman, M.D., Beverly Hills, Calif.

SURGICAL PROCEDURES IN PSYCHONEUROTIC WOMEN 960
Pearl C. Uhlit, M.D., and Edwin F. Gildea, M.D., St. Louis

COLLES' FRACTURE 963
William H. Cornbeam, M.D., New York

CARBON TETRACHLORIDE NEPHROSIS 965
Robert M. Favrior, M.D., and Richard H. Smith, M.D., Staten Island, N. Y.

Clinical Notes

TREATMENT OF INTERMITTENT CLAUDICATION 968
Meyer Heide, M.D., Philadelphia

PSEUDOPERICARDITIS 969
Sidney Schnur, M.D., Houston, Texas

Council Reports

Council on Pharmacy and Chemistry New and Nonofficial Remedies 970
Council on Foods and Nutrition 970
Council on Physical Medicine and Rehabilitation 971

Editorials and Comments

Coxsackie Disease 972
Drug Addiction 973
Employment of the Physically Handicapped 974

Organization Section

Proceedings of the San Francisco Session 975

Washington News

Medical Legislation 1002

Government Services

Navy 1003
Public Health Service 1003

Regular Departments

Medical News 1004
Marriages 1008
Deaths 1009
Foreign Letters
Italy 1012
Switzerland 1013
Principality of Monaco 1013
Madrid 1014
Denmark 1015
Brazil 1015
Colombia 1016
Correspondence 1017
Medicolegal Abstracts 1018
Medical Examinations and Licensure 1018
Current Medical Literature 1019
Book Notices 1035
Queries and Minor Notes 1038
Tonics and Sedatives ..... Adv. Page 38
Books Received ..... Adv. Page 52

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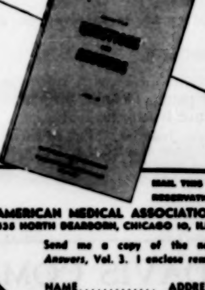

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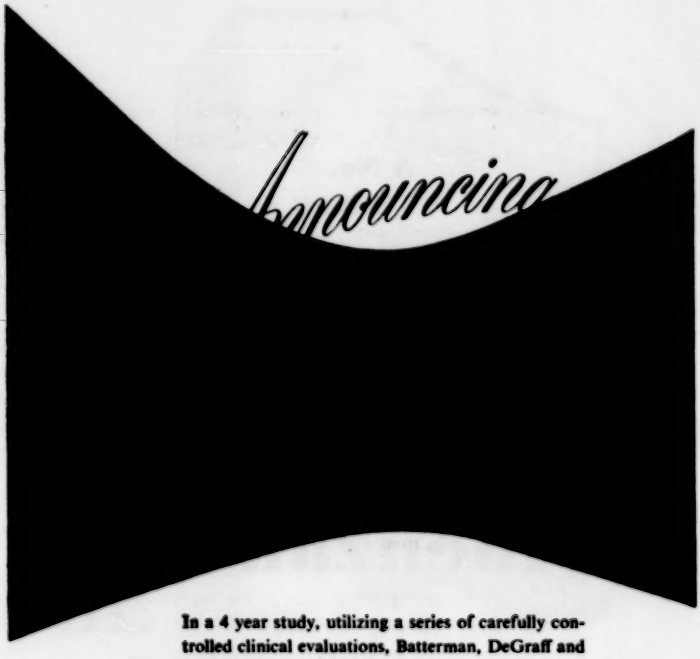

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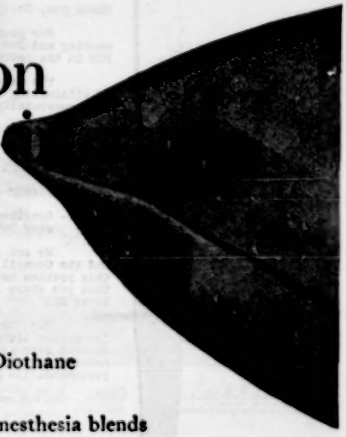

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—Isberg, E. M.: J. Florida M. A. 35: 356 (1948).

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Since disturbances of renal function are associated with congestive heart failure,[1] the following clinical observation is significant: "The administration of potassium salts to patients with severe renal insufficiency may be a dangerous procedure."

—Keith, N. M., and Burchell, H. B.: Am. J. M. Sc. 217: 1 (1949); abstracted, J.A.M.A. 140: 559 (1949).

[redacted] *contains no potassium*

"Patients on low sodium diets exhibit an increased susceptibility to the toxic effects of lithium . . ."

—Corcoran, A. C.; Taylor, R. D., and Page, I. H.: J.A.M.A. 139: 685 (1949).

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1. Heller, B. I., and Jacobson, W. E.: Am. Heart J. 39: 188 (1950).

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*New and Non-official Remedies, 1950, (in press).

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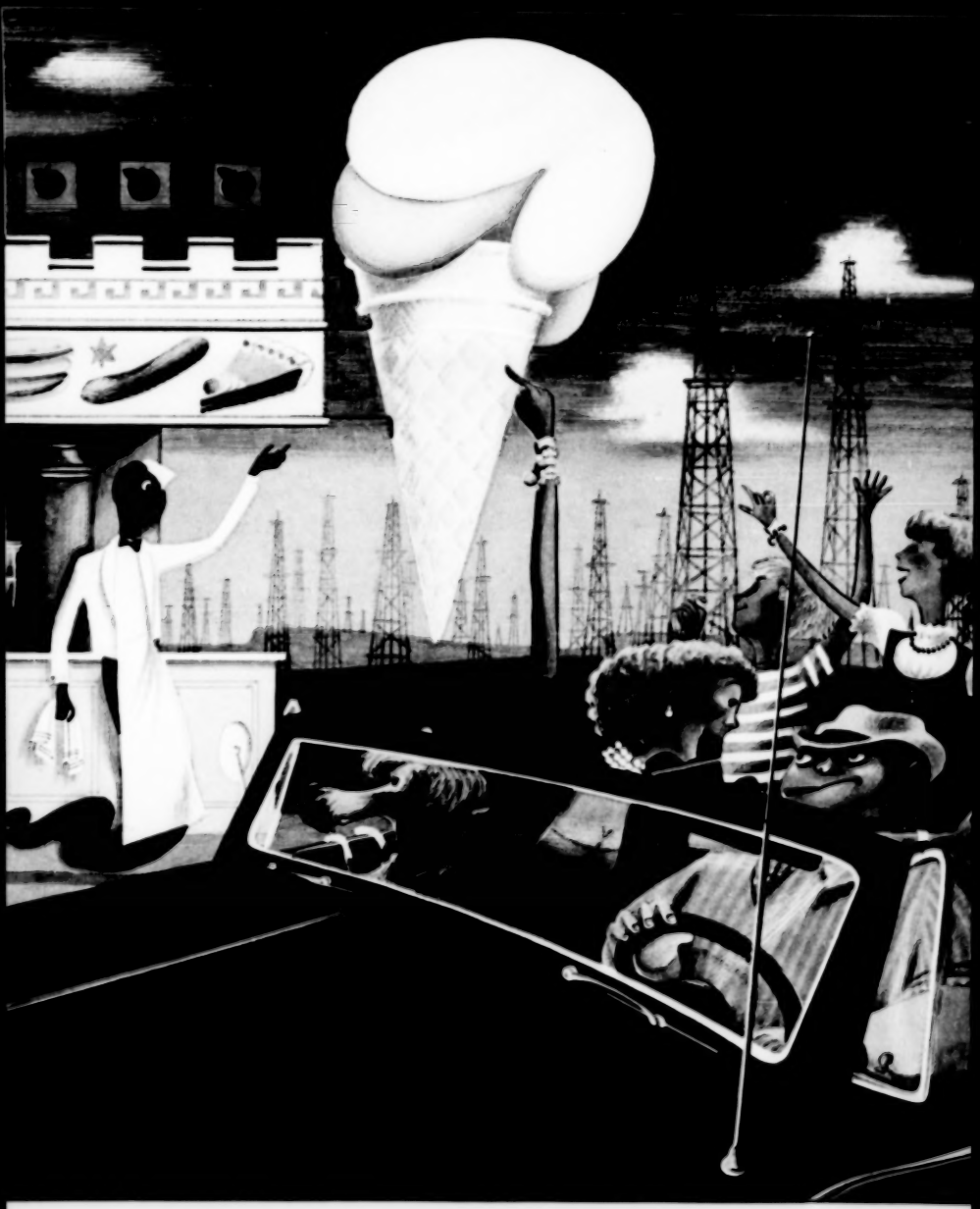

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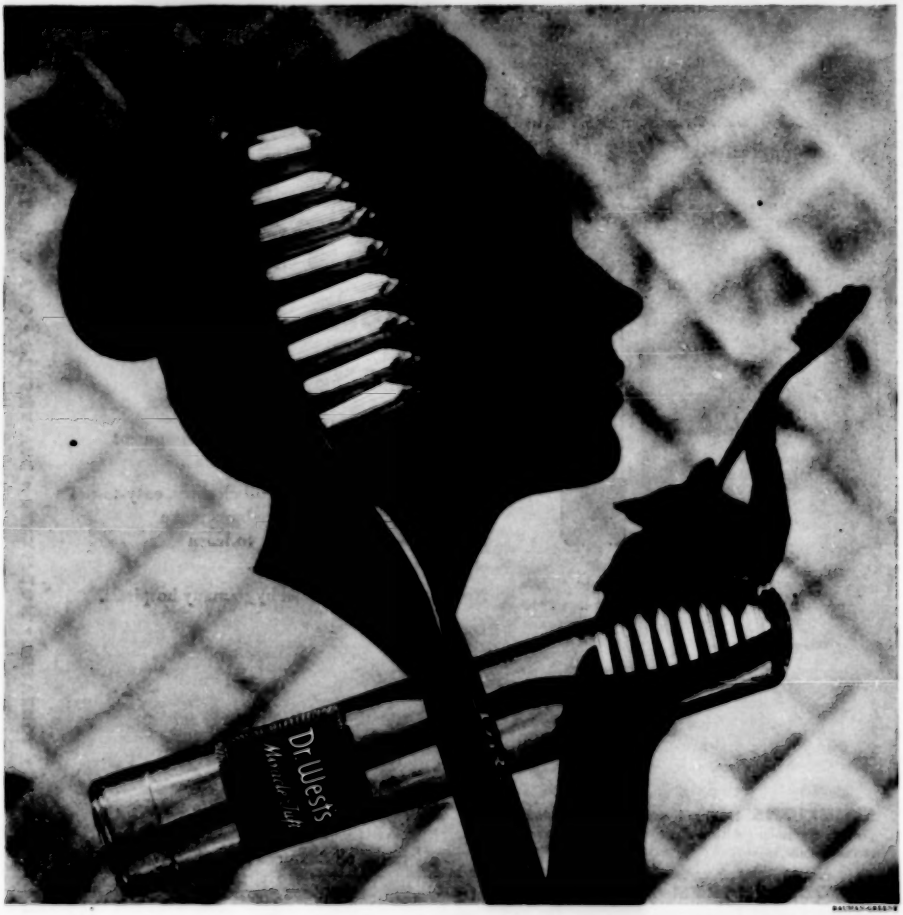

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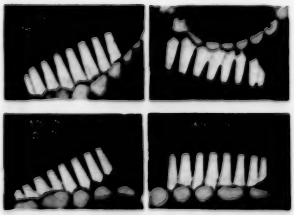

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Harding, F. E.: West. J. Surg. Obst. & Gynec. 52:31 (Jan.) 1944

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Neustaedter, T.: Am. J. Obst. & Gynec. 46:530 (Oct.) 1943.

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Glass, S. J., and Rosenblum, G.: J. Clin. Endocrinol. 3:95 (Feb.) 1943

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Perloff, W. H.: Am. J. Obst. & Gynec. 58:684 (Oct.) 1949.

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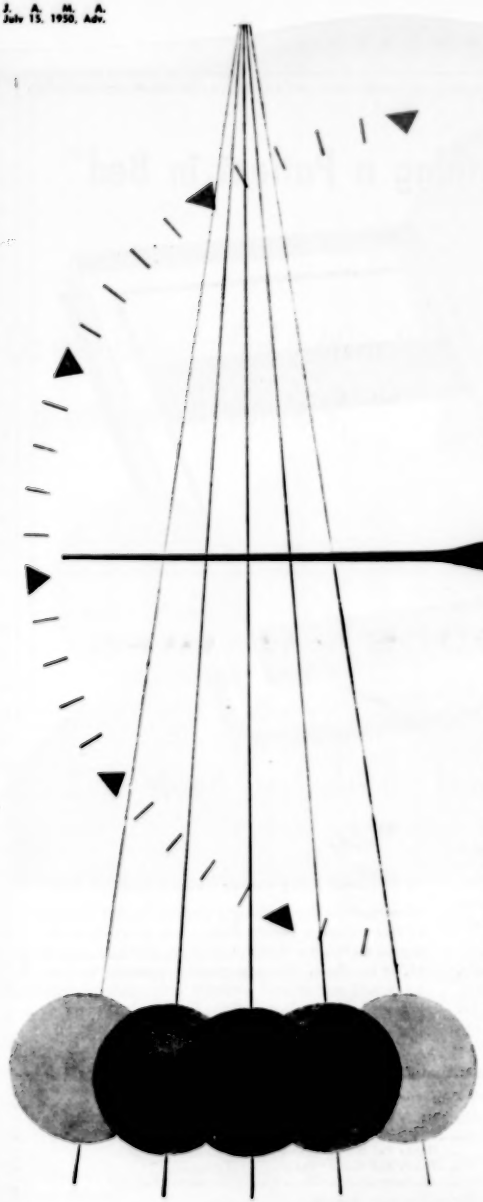

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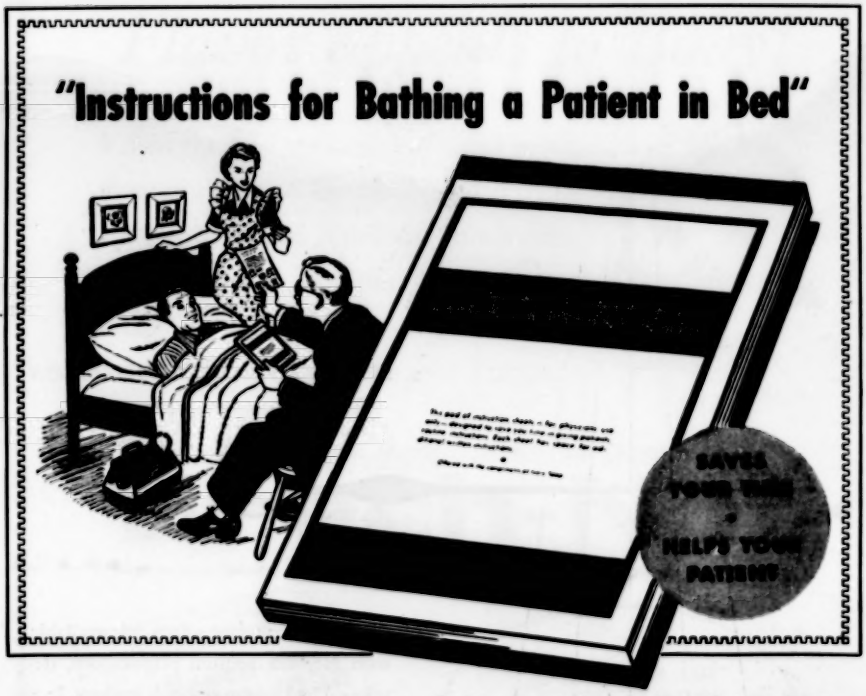

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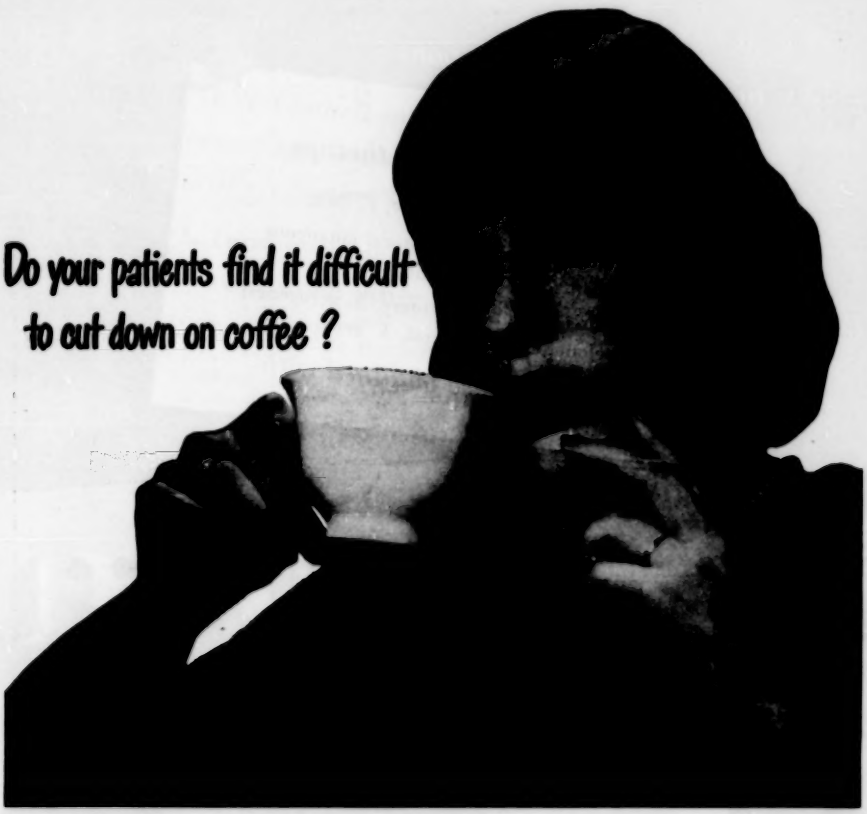

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1. King, E. Q.; Lewis, C. N.; Welch, H.; Clark, E. A., Jr.; Johnson, J. B.; Lyons, J. B.; Scott, R. B., and Cornely, P. B.: J.A.M.A. 143:1 (May 6) 1950.
2. Herrell, W. E.; Heilman, F. E.; Wellman, W. E., and Bartholomew, L. A.: Proc. Staff Meet. Mayo Clin. 25:183 (Apr. 12) 1950.

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PSYCHOSOMATIC ASPECTS OF HEARING DEFECTS

Effects of Hearing Loss on Social Life

Number 7 of a Series

A defect in hearing initiates emotional and practical problems which profoundly affect the individual's attitude toward himself and society. In turn his handicap influences the way people act toward him. Some aspects of this complex problem are briefly discussed in this time-saving refresher for the busy practitioner.

A HEARING DEFECT NEED NOT BE AN IRON CURTAIN

It is easy—all too easy—for the patient with hearing defects to draw an invisible curtain of silence between himself and the world. He makes embarrassing mistakes because he fails to hear correctly. He strains to hear, and is discouraged that general conversation remains largely unintelligible. Fatigued by the effort of listening he rejects opportunities to make new friends, refuses invitations from old ones. He withdraws even from the family circle. Only activities which require no hearing appeal to him.

The less attention he pays to the world, the less attention the world pays to him. Yet "isolationism is as archaic in personal life as it is today in national life." [1] Perhaps there are some who prefer a secluded life, who really like to live alone. Yet "man is gregarious by nature . . . finds his greatest effectiveness and happiness in groups." [2]

It is in social life, especially—in play more than in work—that a hearing defect is a handicap. The deaf—and only to a lesser extent the hard-of-hearing—find that social intercourse "must become slow-footed, confined, cramped, trammelled; lost is much of the spontaneity and sprightliness of conversation . . . in their lighter pastimes, or in play, they cannot engage in banter or in the exchange of merry quips." [3]

Yet, with effort, the hard-of-hearing individual can penetrate the curtain imposed by his handicap. He can seek out others of his own kind, join groups of the hard-of-hearing and share their activities, and learn lip reading, slow and arduous as it may be. This program, however, is not always possible, outside of large cities. Nor is it the complete answer to the problem of loneliness. A better solution—where there is effective residual hearing—is the use of a mechanical aid which will help bring to him the world of normal individuals. Only so can his isolation be eliminated.

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3. Best, Harry: Deafness and the Deaf in the United States. The Macmillan Co., New York, 1943, Chap. 19.
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6. Gates, A. I. and Kershner, Rose E.: Report of Sub-Committee of the Committee of Problems of Deafness of the National Research Council: Learning to Use Hearing Aids. Bureau of Publications, Teachers College, Columbia University, New York, 1946.

A CHILD'S SOCIAL ADJUSTMENT DEPENDS LARGELY ON HEARING

A child's social adjustment is never easy. It depends on many factors: on his temperament, the understanding of his parents, the larger environment of his neighborhood and school. The child with a hearing defect has a far harder time than the normal child in making his adjustment to society for it is by understanding oral language that the child becomes a citizen of his first speech community, the family. "His hearing becomes an avenue for understanding and oral communication." [4] From his family, the child graduates to larger social groups, to play with neighboring children, to school groups.

How handicapped the child with hearing defects! If adults are impatient with those who hear imperfectly—as they are—how much more intolerant are the playmates of the hard-of-hearing child. Undoubtedly he has difficulty in gaining cooperation for his own play plans, finds it hard to enter into group activities.[5] Always he remains outside the magic circle of his fellow playmates.

Yet this need not always be so. Often the child has useful residual hearing which may be augmented by the use of a mechanical aid. He should use it. True, this needs the encouragement of his physician, of his teacher, and of his parents.

In one group of children, behavioral difficulties, in which environmental problems were important factors, were found to be present in those refusing to wear hearing aids. Those who had a better environment were more likely to continue to wear their hearing aids. Important, too, was the fact that the personalities of the children who wore aids "appear to have undergone a transformation from undesirable withdrawing behavior and excessive timidity to social competence and . . . to leadership." [6]

PHYSICIANS CAN HELP SOCIAL ADJUSTMENTS

The physician can do much for the hard-of-hearing child, who is able, after all, to do nothing for himself. By recognizing a hearing defect as the cause of a behavior problem, by recommending the proper mechanical help, and by educating the parents as to the value of such aid, he can help bring into useful social life children who would otherwise be isolated in the circumscribed world of the deaf. The child will accept a hearing aid, and wear it, if he has received the proper psychological preparation. Indeed, he will be delighted to have a chance to participate more fully in the home and in social life.

By recognizing the tendency to social withdrawal of his adult hard-of-hearing patient the physician "can serve greatly by insisting that his patient force himself into accepting the helps available in lip reading or an ear phone; that he make himself do the hard thing and join with his fellows in their many and varied activities. He has a contribution to give his community, help him to give it." [2]

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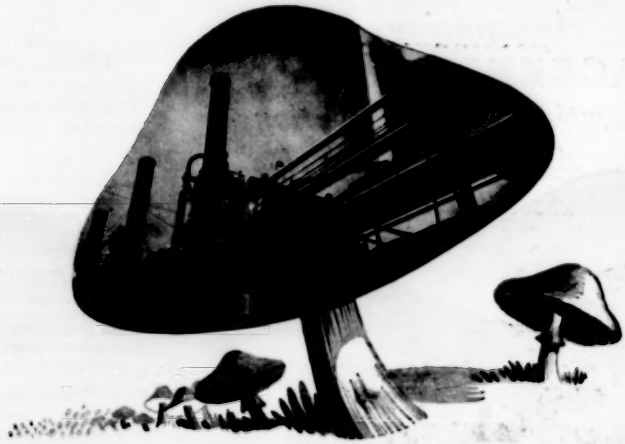

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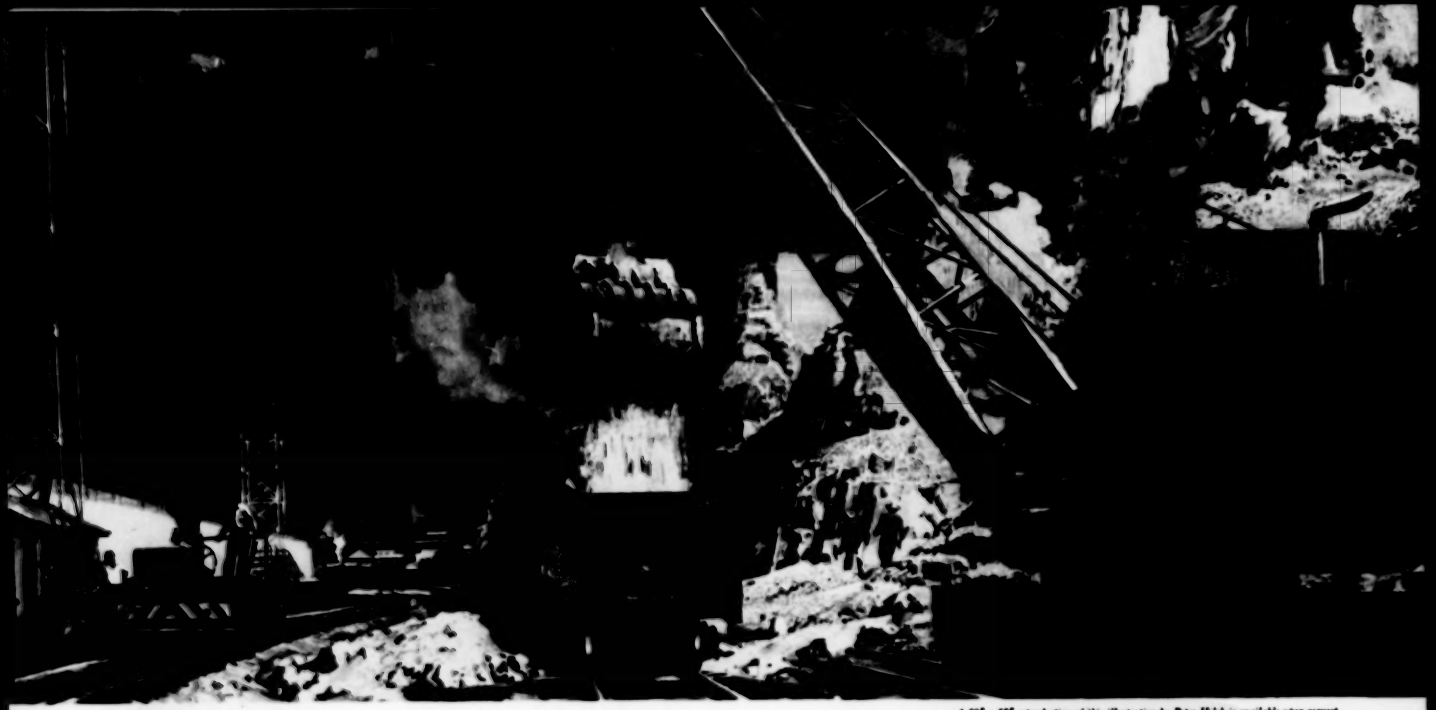

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DIAGNOSIS OF PULMONARY LESIONS DISCOVERED BY MASS ROENTGENOGRAPHIC SURVEY

DUMONT CLARK, M.D.
CARL W. TEMPEL, M.D.
and
KENNETH D. A. ALLEN, M.D.
Denver

Official and voluntary health agencies have in recent years used a technic of mass roentgenography of the chest [1] which is reaching hundreds of thousands of persons throughout the country. The small photoroentgen film used in this technic is not diagnostic, but it generally indicates the presence of an abnormality which must be further identified by the usual 14 by 17 inch (35 by 43 cm.) diagnostic roentgenogram and other studies. The methods used for the identification of these pulmonary lesions shown on the roentgenogram, whether they were unsuspected prior to the mass roentgenographic survey or whether they occurred in patients with vague pulmonary complaints, form the basis of this report. Such lesions are essentially chronic.

Procedure.—The diagnosis in the patient with a pulmonary lesion visible in the roentgenogram will be considered from two viewpoints. First, ordinary diagnostic procedures will be discussed in the order of their usual application. These procedures are outlined in the following tabulation.

A. General procedures—routine measures ordinarily used for any diagnostic work-up.
   1. History—contact with tuberculosis, domiciliary region, occupation, age, sex and family history.
   2. Roentgen and fluoroscopic examinations.
   3. Physical examination—not particularly helpful in the detection of early lesions of the chest.
   4. Temperature and pulse and respiratory rates.
   5. Blood cell count, urinalysis and sedimentation rate.

B. Specific procedures, in the usual order of their employment—necessity to always rule out tuberculosis.
   1. Skin tests for tuberculosis, coccidioidomycosis and histoplasmosis.
   2. Tests of sputum and fasting gastric contents.
      (*a*) Smears and cultures for tubercle bacilli (culture of gastric contents necessary).
      (*b*) Cultures for fungi (technic of obtaining sputum).
      (*c*) Cytologic diagnosis of malignant cells.
   3. Serologic procedures—tests for cold agglutinins and antibodies.
   4. Bronchoscopic examination.
      (*a*) Condition of major bronchi.
      (*b*) Biopsy.
      (*c*) Bronchial aspiration and washings for cells.
   5. Bronchographic study.
   6. Streptomycin for therapeutic trial as a means of diagnosis of tuberculosis.
   7. Pneumoperitoneum and pneumothorax.
   8. Barium swallow.
   9. Needle aspiration and biopsy.
   10. Valsalva procedure and angiocardiogram.
   11. Exploratory thoracotomy.

Second, the differential diagnosis of certain of the more common pulmonary diseases will be discussed. These diseases are listed in the following tabulation.

1. Tuberculosis (pleurisy with effusion)
2. Bronchogenic carcinoma
3. Bronchiectasis
4. Bullous emphysema, cystic disease, spontaneous pneumothorax
5. Silicosis and diseases due to other industrial inhalants
6. Atypical pneumonia
7. Fungus infections
8. Chronic lung abscess and chronic encapsulated empyema
9. Chronic nonspecific (cholesterol) pneumonitis and atelectasis
10. Fibrosis and emphysema
11. Sarcoidosis
12. Lymphoma
13. Metastatic carcinoma
14. Leukemia, polycythemia vera, collagen diseases, eosinophilic pneumonopathy (Loeffler's syndrome)
15. Circulatory changes (chronic passive congestion, uremia, mitral stenosis)
16. Diaphragmatic hernia
17. Other tumors: bronchial adenoma, neurofibroma, dermoid cyst, hamartoma, substernal thyroid

GENERAL DIAGNOSTIC PROCEDURES

History.—The general diagnostic procedures are applied in the same fashion as they are in the study of any patient. The identification of a pulmonary lesion is no different from that of a diseased condition elsewhere. The history is of the greatest importance. It allows the physician to get acquainted with the patient and his emotional problems as well as to evaluate and to integrate the patient's various complaints. It assists in the selection of the roentgen technic to be used. Some special emphasis should be placed on questions dealing with contact with tuberculosis, the regions of the country in which the patient has resided, his occupations, age, sex, race and family history.

Roentgen Examination.—It is beyond the scope of this article to describe the characteristics of a good radiograph or how to produce one. When referred to, it is to be understood that the radiograph should be of

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1. Birkelo, C. C.; Chamberlain, W. E.; Phelps, P. S.; Schools, P. E.; Zachs, D., and Yerushalmy, J.: Tuberculosis Case Finding: A Comparison of the Effectiveness of Various Roentgenographic and Photofluorographic Methods, J. A. M. A. **133**: 359-366 (Feb. 8) 1947.

good detail, optimum contrast and proper density. It must be realized that evidence of early disease, particularly tuberculosis, can be completely obliterated by too much density and poor contrast and can be simulated in a normal chest by too much contrast and too little density. Interpretation of the radiograph is the important item.

Fluoroscopic Examination.—Use of the fluoroscope is not only completely inadequate for the detection of early disease but can actually be a menace by producing a false sense of security. It can be dangerous to the patient and the physician who is not expert in the manipulation of the instrument. For its limited use its roentgen output per minute must be known, a cumulative clock showing the total time used on each patient must be used, adequate space for its housing must be provided and fifteen minute dark adaptation for the operator's eyes must be obtained before the first examination is attempted.

Physical Examination.—The efficacy of the physical examination of the chest and the lungs is disappointing in most chronic pulmonary diseases, especially in the discovery of an early lesion. Rales, changes in the percussion note and bronchial or bronchovesicular breath sounds may be detected in connection with any lung disorder, but more often they are not heard. When heard, they are frequently nonspecific from a diagnostic standpoint, except in chronic bronchitis and asthma, and serve only to further localize the lesion. Diminished or absent breath sounds in the presence of normal resonance or hyper-resonance suggest emphysema or spontaneous pneumothorax. On the other hand, an evaluation of the circulatory status of the patient by physical examination may be of the greatest importance. This can be especially true when the condition is mitral stenosis and insufficiency. Enlarged external lymph nodes, by their location, number and consistency, may indicate carcinoma, sarcoidosis, tuberculosis, one of the various blood dyscrasias or lymphoma. A biopsy of the node may then settle the diagnosis. Splenic enlargement is frequently noted with the blood dyscrasias or lymphomas.

The differential diagnostic value of the temperature and pulse and respiratory rates is not great. A rise in temperature may indicate an infectious process. Changes in the pulse and respiratory rates are common phenomena whose significance is well known. The same applies to the blood cell count and urinalysis. The blood cell count usually leads to the diagnosis of a blood dyscrasia, if such is present. Other information from the blood cell count is common knowledge, as are the findings of a urine examination, and will not be further discussed here. The sedimentation rate is elevated in inflammatory reactions and with tissue destruction and, therefore, is nonspecific.

SPECIFIC DIAGNOSTIC PROCEDURES

Skin Tests.—Three different skin tests are commonly used, the tuberculin, the coccidioidin and the histoplasmin. If properly performed, these tests are reliable for the disease in question. A positive reaction to a skin test indicates that the patient has or has had an active infection. A negative reaction usually rules out the disease being studied. It may be possible for a tuberculous infection to have long since been destroyed although a scar of fibrous tissue, with or without calcium deposits, remains. Apparently a patient in which this has occurred may rarely have a negative reaction to a tuberculin skin test.[2] A negative or depressed skin reaction may also be obtained if the infection has been recent, if the patient is seriously ill with the disease or with certain other illnesses, such as measles, and if the patient is extremely dehydrated. With these exceptions it follows that a negative reaction to a skin test, especially if it has been done more than once with an adequate quantity of antigen, rules out the disease in question.

The details of skin testing will not be elaborated here. The methods have been adequately described.[3] A positive reaction to an intracutaneous test is characterized by an area of inflammation (redness and induration) at least 0.5 cm. in diameter. The purified protein derivative of Seibert is a satisfactory preparation of tuberculin and can be obtained from most drug houses. Coccidioidin in a concentrated form may be obtained from the Cutter Laboratories, Berkeley 10, Calif. The concentrated material is diluted 1:100 with sterile isotonic sodium chloride solution. The dilution lasts many months. The skin test is performed in the same manner as the tuberculin (Mantoux) test and is read in the same fashion. Histoplasmin may be obtained from the Lilly Research Laboratories, Indianapolis 6, Ind. The proper dilution is indicated with the material. The test is performed and read as are the tuberculin and coccidioidin skin tests.

Sputum.—If the patient with a pulmonary lesion has sputum, it should always be examined for the presence of tubercle bacilli in the manner to be described. If the patient does not raise sputum it will then be necessary in most instances to culture the fasting gastric contents for tubercle bacilli. This is another way of saying that nearly all pulmonary lesions are primarily suspect for tuberculosis. It is usually best to obtain a twenty-four hour sample of sputum. The patient should be instructed by the physician as to what is meant by sputum. If the sputum is scanty (a teaspoonful or less) in twenty-four hours, then a forty-eight hour or, rarely, a seventy-two hour specimen should be collected. When an attempt is being made to establish a diagnosis of tuberculosis for the first time, the laboratory to which the sputum is sent should be instructed to culture the sputum for tubercle bacilli as well as to search for them by smear. Guinea pig inoculation for detection of tubercle bacilli can be used in place of culture methods, but the latter are now as accurate as guinea pig inoculation for the isolation of the bacillus.

If sputum is not available from the patient, the fasting gastric contents can be examined for the tubercle bacillus. The only instructions necessary for the patient are that he come to the laboratory as soon after getting up in the morning as possible and that he should neither eat nor drink anything after midnight the night before. The stomach contents are aspirated with a small soft rubber tube. If the aspiration is done in the physician's office, an equal amount, by volume, of hydrated tribasic sodium phosphate solution ($Na_3PO_4 \cdot 12H_2O$, 23 Gm. per 100 cc. distilled water) should be immediately added to the gastric contents,[4] which should be taken to the laboratory as soon as possible. It has been found that

2. Rich, A. R.: The Pathogenesis of Tuberculosis, Springfield, Ill., Charles C Thomas, Publisher, 1944, p. 369.

3. Diagnostic Standards, New York, National Tuberculosis Association, 1940, p. 23.

4. Corper, H. J., and Stoner, R. E.: An Improved Procedure for the Diagnostic Culture of Mammalian Tubercle Bacilli, J. Lab. & Clin. Med. 31:1364-1371 (Dec.) 1946. Kabler, P., and Lundholm, R.: Culture of Tubercle Bacilli from Specimens of Gastric Juice, Am. J. Clin. Path. 19:683-687 (July) 1949.

unaltered gastric juice will destroy the tubercle bacillus after contact with it for a few hours. There are frequently acid-fast bacilli other than tubercle bacilli in the stomach. For this reason smears of gastric contents have little value. The only satisfactory method of examining gastric contents for the tubercle bacillus is to culture the material for the organism. The details of the culture methods will not be elaborated here. In our experience Petragnani's culture medium is the best for isolation of the tubercle bacillus. It takes three to eight weeks for the bacillus to grow on this medium. Recently Berry and Lowry [5] developed a slide culture technic which will demonstrate the tubercle bacillus in two to six days.

Sputum which is to be cultured for fungi should be obtained with certain precautions. The patient is instructed to rinse out his mouth with water or, preferably, with a dilute solution of alcohol and water before coughing up the sputum specimen. Candida, Aspergillus and other pathogenic and nonpathogenic fungi are frequent mouth contaminants and may be expectorated with the sputum if not removed beforehand. It is a relatively simple matter to culture sputum for fungi.[6] Sabouraud's mediums are generally used, but most fungi will also grow on ordinary blood agar mediums. The identification of the fungus is a matter for the expert. The fungus Coccidioides immitis is destroyed in the stomach, whereas the fungus Histoplasma capsulatum is not. Experience indicates, however, that it is difficult to culture pathogenic fungi from the stomach, so that the procedure is seldom used except in special studies.

Carefully obtained samples of sputum can be studied by the Papanicolaou technic [7] for malignant cells, which, if definitely identified, are diagnostic of bronchogenic carcinoma. Such sputum must be in the laboratory in a matter of minutes after being coughed up. If this is not possible, the patient should be given a small, wide-mouthed, stoppered bottle in which 10 to 15 cc. of 70 per cent alcohol has been placed. When the patient raises sputum he spits it into the bottle containing the alcohol. When mixed with the alcohol the sputum becomes fixed and will keep for several days. Even so, the sooner it is examined for malignant cells, the better the preparation will be. In many hospitals and clinics the cytologic diagnosis of malignant cells is now well beyond the experimental stage.[7] In such institutions nonmalignant cells are called malignant in only 2 to 4 per cent of the cases studied. This mistake is called a false positive diagnosis. A false negative diagnosis, or one which occurs when the patient has bronchogenic carcinoma but malignant cells are not found in the sputum, occurs in 6 to 10 per cent of cases. This makes a total error of 8 to 14 per cent. Formerly a positive diagnosis of bronchogenic carcinoma could be made by bronchoscopic examination and biopsy in somewhat less than 50 per cent of cases. In contrast to this, 86 per cent or more positive diagnoses of carcinoma have been made through cytologic study of sputum and bronchial washings. Nevertheless, all patients with suggestive bronchogenic carcinoma should have a bronchoscopic examination. A bronchoscopic biopsy section will detect the nature of the carcinoma (squamous cell, glandular, oat cell or other), and the examination itself will frequently reveal the location and development of the tumor. All this information is vital to the chest surgeon who plans to remove the tumor and is desirable for the radiologist if he is to treat a patient with an inoperable case of the disease.

Serologic Procedures.—A Wassermann or Kahn test of the blood should be made for every patient. Cold agglutinins are found in the serum of most patients with atypical pneumonia after a week or so of the disease.[8] Antibodies for fungus antigens are frequently present in the blood during the active stages of the infection.[8a] Dr. Charles E. Smith of the University of California School of Public Health, Berkeley 4, Calif. will accept blood samples for study for antibodies in coccidioidomycosis. He requires a short clinical summary of the case.

Bronchoscopic Examination.—Bronchoscopic examination is a highly specialized technic which should be done only by the expert. Many physicians have learned to pass a bronchoscope but have not seen enough pathologic conditions to qualify as experts. Initially, the bronchoscope was used to remove foreign bodies from the larynx, trachea and bronchi. It has now become a diagnostic instrument of great worth. It is used not only to secure biopsy sections but also to note the condition of the lumen of the bronchi, especially the bronchial mucosa, and to aspirate bronchial secretions which may not be prolific enough to form sputum. Frequently the bronchial secretions cannot be aspirated, and in this event 15 to 20 cc. of sterile isotonic sodium chloride solution is introduced into the bronchus through the bronchoscope and is aspirated back with the bronchial secretions. Such bronchial washings are used for study for malignant cells. Five or ten cubic centimeters of 95 per cent alcohol should be added to the washings unless they can be sent immediately to the laboratory. The culture of bronchial aspiration material or washings for the tubercle bacillus is seldom successful if the organisms cannot be cultured from the sputum or from the gastric contents. There are few contraindications to bronchoscopic examination. It can be done a few days after hemoptysis; it is used freely in patients with any stage of pulmonary tuberculosis, and age is not a factor. A patient who is seriously ill should not, as a rule, undergo bronchoscopic examination. This would include patients with a serious disease of the larynx.

Bronchographic Examination.—The bronchogram, or roentgenogram made after the instillation of radiopaque oil, usually iodized oil, into the bronchial tree, has its main function in the diagnosis of bronchiectasis. It is usually not helpful in the diagnosis of chronic lung abscess, cystic disease or emphysema. The bronchogram is occasionally helpful as a means of differentiating normal lung tissue from tissue affected by bullous

5. Berry, J. W., and Lowry, H.: A Slide Culture Method for the Early Detection and Observation of Growth of the Tubercle Bacillus: Preliminary Report, Am. Rev. Tuberc. **60**:131-41 (July) 1949.

6. Manual of Clinical Mycology, National Research Council, Committee on Medicine, Philadelphia and London, W. B. Saunders Company, 1945, p. 319.

7. Papanicolaou, G. N.: Diagnostic Value of Exfoliated Cells from Cancerous Tissues, J. A. M. A. **121**: 372-378 (June 1) 1946. Watson, W. L.; Cromwell, H.; Craver, L. ,and Papanicolaou, G. N.: Cytology of Bronchial Secretions: Its Role in the Diagnosis of Cancer, J. Thoracic Surg. **18**: 113-123 (Feb.) 1949. Herbut, P. A., and Cherl, L. H.: Bronchogenic Carcinoma: Diagnosis by Cytologic Study of Bronchoscopically Removed Secretions, J. A. M. A. **130**: 1006-1012 (April 13) 1946. Woolner, L. B., and McDonald, J. R.: Bronchogenic Carcinoma: Diagnosis by Microscopic Examination of Sputum and Bronchial Secretions: Preliminary Report, Proc. Staff Meet., Mayo Clin. **22**: 369-381 (Sept. 3) 1947.

8. Dingle, J. H.; Williams, R. F., and Craig, J. P.: The Diagnosis and Management of Atypical or Virus Pneumonia, Ann. Int. Med. **30**: 1134-1142 (June) 1949.

8a. In the near future the Cutter Laboratories, Berkeley 10, Calif., will provide the materials for coccidioidal serology tests. The Mycology Laboratory, Communicable Disease Center, United States Public Health Service, Chamblee, Ga. will accept a limited number of blood samples on presumably active cases of histoplasmosis. For this service they require a brief clinical summary and any pertinent epidemiologic data. The blood samples should be allowed to clot, and 5 to 10 cc. of serum should be sent in a Wassermann tube without any preservative added.

emphysema. In obstructive pneumonitis bronchograms are frequently helpful in demonstrating the point of obstruction and the pulmonary segment or segments involved. A bronchogram should be made with caution if asthma or hypertrophic emphysema is suspected. Patients with such diseases frequently have difficulty in freeing their lungs of the iodized oil, which may also reduce an otherwise low vital capacity. With these exceptions there are few contraindications to bronchography. Rarely a person is allergic to iodized oil. In this instance one of the other radiopaque oils can be substituted. One point should be kept in mind about the bronchogram. It may take days or weeks, and occasionally months or years, for the lung to rid itself of the iodized oil. Retained iodized oil may obscure lesions which are present or simulate disease in a normal lung.

Streptomycin.—It is occasionally recommended that streptomycin be given to a patient who has an undiagnosed lesion of the chest. If, with streptomycin therapy, the lesion improves in a matter of two or three months, this suggests that it is tuberculous in nature. The use of streptomycin in this manner has little to commend it. Results are often equivocal, so that the diagnosis remains in doubt. Precious time is lost if the lesion is a carcinoma. A tuberculous lesion might be ineffectively treated by this method, and at the same time infection might become resistant to the further action of streptomycin.

Pneumoperitoneum and Pneumothorax.—Pneumoperitoneum,[9] or the injection of air through a needle into the peritoneal cavity, and pneumothorax, or the injection of air into the pleural space, are generally used as therapeutic measures. It becomes necessary at times to determine the position of the diaphragm in a radiograph. This can be accomplished by the performance of a pneumoperitoneum, which should be done by one well trained in this procedure. If the base of the lung is obscured by a lesion, the pneumoperitoneum, by revealing the position of the diaphragm, will show whether the lesion in question is above or below the diaphragm. In the past pneumothorax [10] was used not infrequently to further delineate a pulmonary lesion. It is seldom used for this purpose now. A small pneumothorax space is better visualized in a radiograph made at complete expiration.

Barium Swallow.—Fluoroscopic examination of the esophagus, posterior mediastinum and stomach while the patient swallows a barium suspension can give important information.[11] Diaphragmatic hernia may cause abdominal viscera to produce bizarre shadows in the roentgenogram of the chest. This can be better visualized if barium is used.

Needle Aspiration and Biopsy.—Thickened pleura and pleural fluid are often indistinguishable when the previously discussed diagnostic procedures are used. In this event it becomes necessary to aspirate for fluid. If fluid is present, it generally can be found with a needle. As a rule any pleural fluid should be cultured for the tubercle bacillus as well as for other organisms. Malignant cells are rarely found in centrifuged pleural fluid. A few physicians have used a needle to aspirate material from tumors of the chest.[12] In most hands the method has proved to be dangerous.[13] One can produce pneumothorax, hemorrhage or spread of a cancer along the needle track. With the development of the cytologic technic for the detection of bronchogenic carcinoma, the need for needle biopsy of chest tumors has largely disappeared.

Valsalva Procedure and the Angiocardiogram.—The Valsalva procedure and the angiocardiogram are mentioned for the sake of completeness.[14] The Valsalva procedure, performed at the moment when an ordinary roentgenogram of the chest is made, makes possible better visualization of an arteriovenous shunt in the lungs. In this procedure the patient attempts to inhale while holding his nose and mouth, and a roentgenogram of the chest is made. The increased negative pulmonary pressure provides for more blood in the lungs. With more blood the area of the shunt is frequently larger and denser than in normal circumstances. The angiocardiogram has many uses other than the detection of an arteriovenous shunt in the lungs. In this procedure 70 per cent iodopyracet injection is rapidly given intravenously, and, by the proper timing of roentgenograms of the chest, the iodopyracet will make possible visualization of the chambers of the heart and the great vessels. It probably will not be used as extensively as it earlier promised.

Exploratory Thoracotomy.—Better operative technics, including the use of anesthesia, and the emergence of effective antibacterial substances has enabled the surgeon to reach any portion of the thoracic cavity with about the same risk that he can reach any portion of the abdomen. In the past there has been little or no hesitancy to enter the abdomen in order to remove or perform a biopsy on an unknown tumor. Similar conditions now prevail for the chest. Exploratory thoracotomy is resorted to when all the previously discussed diagnostic procedures fail to determine the nature of a pulmonary lesion.[15] This situation most often prevails when the pulmonary lesion is a single, persistent, variable-sized rounded density by roentgenogram (fig. 1). Such round lesions, in the order of frequency of their occurrence in our experience, are tuberculoma, carcinoma and fluid-filled cyst. More rarely the following lesions occur: coccidioidomycosis, noncalcified tuberculous lymph node, lymphoma, sarcoid, neurofibroma and hamartoma. Biopsy or removal of all these lesions has been successfully done with the protection afforded by antibacterial substances, especially streptomycin, which should always be used. Even a long-standing lesion of coccidioidomycosis can be removed with minimum danger.[16] Conditions not mentioned for which an exploratory thoracotomy has been done with some frequency include chronic lung abscess and chronic pneumonitis. The surgical procedures accomplished after the lung is entered may be simple biopsy, removal of a segment of the lung, lobectomy or pneumonectomy.

9. Banyai, A. L.: Pneumoperitoneum Treatment, St. Louis, C. V. Mosby Company, 1946.

10. Alexander, J.: The Collapse Therapy of Pulmonary Tuberculosis, Springfield, Ill., Charles C Thomas, Publisher, 1937, p. 262-289.

11. Backus, H. L.: Gastro-Enterology, Philadelphia and London, W. B. Saunders Company, 1946, vol. 1, p. 84.

12. Craver, L. F.: Diagnosis of Malignant Lung Tumors by Aspiration Biopsy and by Sputum Examination, Surgery **8**: 947-960 (Dec.) 1940.

13. Ochsner, A.; DeBakey, M., and Dixon, J. L.: Primary Cancer of the Lung, J. A. M. A. **125**: 321-327 (Oct. 11) 1947.

14. Makler, P. T., and Zion, D.: Multiple Pulmonary Hemangiomata, Am. J. M. Sc. **211**: 261-266 (March) 1946. Goldman, A.: Arteriovenous Fistula of the Lung: Its Hereditary and Clinical Aspects, Am. Rev. Tuberc. **57**: 266-280 (March) 1948. Cooley, R. N.; Bahnson, H. T., and Hanlon, C. R.: Angiocardiography in Congenital Heart Disease of Cyanotic Type with Pulmonic Stenosis or Atresia, Radiology **52**: 329-346 (March) 1949.

15. Grow, J. B.; Bradford, M. L., and Mahon, H. W.: Exploratory Thoracotomy in the Management of Intrathoracic Disease, J. Thoracic Surg. **17**: 480-494, 1948.

16. Greer, S. J., and Grow, J. B.: Surgical Lesions of Pulmonary Coccidioidomycosis, Dis. of Chest **16**: 336-353 (Sept.) 1949.

The work depends on the nature of the lesion and the judgment of the surgeon. Exploratory thoractomy is undertaken with provisions for any eventuality in much the same manner as is the exploration for a tumor of the breast. The decision to explore should be made with the advice and help of the thoracic surgeon.

DIAGNOSIS OF THE MORE IMPORTANT DISEASES

Tuberculosis.—A definite diagnosis of tuberculosis is not made clinically until the tubercle bacillus is found or the pathologic lesion is seen under the microscope. The physician may feel certain of the diagnosis without being able to demonstrate the tubercle bacillus, as in a typical lesion of the upper lobe with a cavity in a young adult who has a positive reaction to a tuberculin skin test or in a parenchymal lesion of the upper lobe which appears on serial roentgenograms and shows two or more demarcated areas of variable shades of density (fig. 2 B). In such circumstances a tentative diagnosis is made and treatment instituted. Because a diagnosis of tuberculosis means a long term period of treatment if the disease is active and many years of observation if the disease is arrested, a positive diagnosis is most essential. Serofibrinous pleurisy with effusion

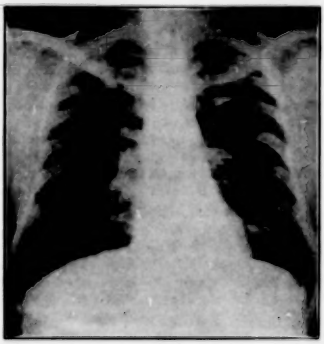

Fig. 1.—Roentgenogram of the chest of a 33 year old salesman with cough and a slight amount of sputum, showing round lesions in the lower lobe of the left lung. Results of diagnostic studies were normal except for a positive reaction to a tuberculin skin test. Exploratory thoracotomy with lobectomy of the lower lobe of the left lung was done. The rather firm lesions in the lobe were later determined to be nonspecific, probably cholesterol, pneumonitis.

is usually an acute process and should be considered tuberculous in origin.[17] If, in a young person who has had a negative reaction to a tuberculin skin test, the reaction becomes positive at about the same time that a pulmonary lesion demonstrable by roentgenogram develops, there is strong presumptive evidence that the lesion is tuberculous. In a person who is acutely ill with tuberculosis the tuberculin skin reaction will rarely be negative, but in such instances it is almost always possible to obtain the tubercle bacillus from the sputum or gastric contents. There will be many lesions that suggest tuberculosis from the roentgenographic appearance but in which the tubercle bacillus cannot be found. If such a lesion persists over a period of many weeks without much change, atypical or virus pneumonia can be eliminated. Carcinoma, coccidioidomycosis, bronchiectasis, chronic lung abscess, bullous emphysema or cystic disease may involve the upper lobe of either lung and be readily confused with tuberculosis. In such instances bronchiectasis and chronic lung abscess will often be suspected after the patient has an acute respiratory infection. When this happens, the area of

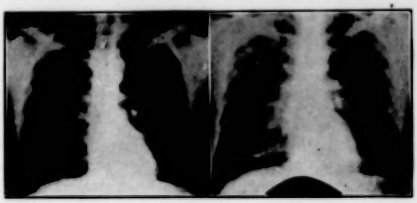

Fig. 2.—Roentgenograms of the chest of a 20 year old man. *A*, roentgenogram showing the lesion found in the apex of the right lung during a check-up after a "cold." The patient was told that the lesion should be watched with further roentgenograms. *B*, roentgenogram made five months later, showing the condition which often develops when a pulmonary lesion is watched instead of diagnosed. There is bilateral, moderately advanced tuberculosis.

bronchiectasis or abscess may become active and moist, and crepitant and subcrepitant rales may be heard (fig. 3). A bronchogram can then be made and, if properly interpreted, the true nature of the lesion can be determined. The other conditions will be discussed later. The judgment of an expert in pulmonary diseases should be sought for the lesions in which a definite diagnosis cannot be made. As has been indicated before, the safest and best plan is to consider all pulmonary lesions tuberculous until proved otherwise. This is especially true if a vigorous, intelligent program has been followed pursuant to a diagnosis. A total of 1,577 patients with an initial diagnosis of pulmonary tuberculosis were examined at Fitzsimons General Hospital in 1948. Of these, 192, or about 12 per cent, were found not to have tuberculosis. The rather large number of patients in whom no pulmonary disease was found is of interest. The accompanying table shows the final diagnoses in these 192 patients, who were originally thought to have tuberculosis from the roentgenographic findings. A healed, usually calcified, primary tuberculous lesion in the lung, called a Ghon focus, is a small rounded area generally less than a centimeter

Fig. 3.—Roentgenograms of the chest of a 22 year old woman with a history of cough and expectoration of many years' duration. *A*, prominent trunk shadows into the apex of the right lung were diagnosed as tuberculosis. Cultures of the sputum and gastric contents were repeatedly negative for the tubercle bacillus. *B*, after a "cold" the patient had mucous and subcrepitant rales. The condition was diagnosed as bronchiectasis by bronchogram. The patient was apparently cured by lobectomy.

in diameter. This constitutes the so-called "spot on the lung" of older writers. Because this lesion is seldom serious, many physicians have erroneously assumed that any small pulmonary density in the roentgenogram can

17. Barnwell, J. B., and Cecil, R. L.: A Text Book of Medicine, Philadelphia and London, W. B. Saunders Company, 1947, p. 977. Pinner, Max: Pulmonary Tuberculosis in the Adult: Its Fundamental Aspects, Springfield, Ill., Charles C. Thomas, Publisher, 1945, p. 247.

be viewed with complacency. It is important to emphasize that the majority of patients with early minimal tuberculosis are entirely symptom free, and yet the lesions must be considered active.[18] Experience has shown that such lesions are potentially progressive and that they often are the forerunners of advanced and destructive tuberculosis (fig. 2).

Carcinoma.—It should be noted that not much was said in the paragraph on tuberculosis about the age levels at which tuberculosis is usually discovered. Active tuberculosis in mass roentgen surveys is found at all ages. On the other hand, cancer continues to be a disease largely of middle or old age.[19] Therefore, if a pulmonary lesion is discovered in a young adult, it is not likely to be cancer, even though bronchogenic carcinoma can arise in any part of the lung at any age. The roentgenographic appearances of bronchogenic carcinoma and tuberculosis may be similar at certain stages of the two diseases (fig. 4). Frequently it is necessary to carry out simultaneous studies for the diagnosis of carcinoma and tuberculosis. An early diagnosis of cancer is vital. Whereas the statement has been made that tuberculosis is primarily suspected always have a characteristic history of repeated chest colds frequently complicated by pneumonia. Many have a persistent cough, with or without sputum. Hemoptysis is a common occurrence. The sputum should be checked for the tubercle bacillus by culture.

Final Diagnosis in 192 Patients with What Was Originally Diagnosed as Pulmonary Tuberculosis

Final Diagnosis	No. of Patients
Fibrosis and emphysema (including chronic bronchitis and asthma)	67
No pulmonary disease found	38
Bronchiectasis	16
Bullous emphysema, cystic disease, spontaneous pneumothorax	13
Fungus infections	11
Chronic nonspecific pneumonitis and atelectasis	9
Acute infectious bronchitis, lung abscess, pneumonia	9
Silicosis	8
Chronic lung abscess and chronic encapsulated empyema	8
Atypical pneumonia	5
Circulatory changes (chronic passive congestion)	5
Bronchogenic carcinoma	4
Sarcoidosis	4
Leukemia, polycythemia, collagen diseases, eosinophilic pneumonopathy (Loeffler's syndrome)	4
Lesions of the thoracic cage	3
Metastatic carcinoma	3
Diaphragmatic hernia	2
Lymphoma	1
Arteriovenous aneurysm	1
Total	192

in all chronic pulmonary lesions, this attitude should not retard the diagnosis of carcinoma, as has been done perhaps too often in tuberculosis sanatoriums. Cytologic study, by experts, for the detection of malignant cell now enables the physician to obtain a quick and accurate diagnosis in 80 per cent or more of cases of bronchogenic carcinoma. If sputum is not available, early bronchoscopic procedures to obtain bronchial secretions are indicated. A biopsy specimen can be obtained at the same time if a tumor is found. Should the bronchoscopic examination and the cytologic method fail to establish a diagnosis and should the tubercle bacillus not be demonstrated in a person over 30 years of age, exploratory thoracotomy should be considered. The only worth while treatment of bronchogenic carcinoma is pneumonectomy. Considerable palliation can be obtained in inoperable cases by adequate roentgen therapy.

Bronchiectasis.—Bronchiectasis is not usually a difficult diagnostic problem. However, bronchiectasis existing only in an upper lobe always poses a problem, as was indicated in the section on the diagnosis of tuberculosis (fig. 3). Persons with bronchiectasis nearly

Fig. 4.—Roentgenogram of the chest of a 38 year old man, showing bronchogenic carcinoma simulating tuberculosis.

If none is found, bronchoscopic examination and a bronchogram should be made, after which procedures the diagnosis is generally clear. Bronchiectasis is found mostly in the lower lobes, the middle lobe of the right lung or the lingular segment of the upper lobe of the left lung. Occasionally all lobes of one or both lungs are involved; in these instances it is extremely difficult to differentiate bronchiectasis from chronic cystic disease.

Bullous Emphysema and Cystic Disease.—Bullous emphysema and cystic disease (emphysematous bleb, pneumatocele, peripheral pulmonary cyst) exist either as a solitary large bulla or multiple smaller bullae.[20] A pulmonary bulla appears to arise from the terminal portion of the bronchial tree, the alveolus or the atrium. Bullous emphysema is not infrequently overlooked. Areas of bullous emphysema can be involved in a pulmonary inflammatory process and can then be confused with ordinary pneumonia. After the pneumonia process

Fig. 5.—*A*, roentgenogram of the chest of a 23 year old man who lived in the western part of Missouri, showing histoplasmosis. Tuberculin skin reactions were repeatedly negative, but reactions to histoplasmin skin tests were positive. *B*, roentgenogram showing lung cyst.

subsides, the thickening of the walls of the bullae may persist, and the condition is often confused with tuberculosis. A differential diagnosis is seldom made unless the condition is found incidentally during thoracotomy

18. Amberson, J. B., Jr.: The Lasting Cure of Early Pulmonary Tuberculosis, J. A. M. A. **109**: 1949-1952 (Dec. 11) 1937.

19. Gibbon, J. H., Jr.; Clerf, L. H.; Herbut, P. A., and De Turk, J. J.: The Diagnosis and Operability of Bronchogenic Carcinoma, J. Thoracic Surg. **17**: 419-427 (Aug.) 1948.

20. Amberson, J. B., Jr., and Spain, D. M.: A Mechanism Explaining Chronic Progressive Pulmonary Bullous Emphysema, Tr. A. Am. Physicians **63**: 92-101, 1947.

or at autopsy. The rupture of a single bulla which may be too small to see in a roentgenogram on the surface of the lung is thought to be the principal cause for the occurrence of spontaneous pneumothorax in an otherwise normal lung.[21] A pulmonary cyst is considered to be an arrested development of the terminal portion of a bronchus.[22] The cyst is lined with bronchial epithelium which may or may not secrete a serous fluid. Pulmonary cysts may be single or multiple and of varying size, up to one that occupies most of the thoracic cavity. A pulmonary cyst that contains air may be confused with a tuberculous cavity (fig. 5). A pulmonary cyst that contains part air and part fluid or is wholly filled with fluid may be confused with a chronic lung abscess, tuberculosis or encapsulated empyema. A cyst filled with fluid may be aspirated several times, and the fluid may reappear. This condition suggests the diagnosis. Cysts usually show up deeper in the parenchyma of the lung than does bullous emphysema, which, when recognized, is more likely to be peripheral. Pulmonary cysts are frequently suspected from their roentgenographic appearance. Single pulmonary cysts are best excised.

Pneumoconiosis.—The list of industrial inhalants which produce changes in the lungs detectable on the roentgenogram is long.[23] Of these, silica, which produces silicosis, is so far the most important. The essential feature in the diagnosis of any industrial inhalant disease is a history of exposure. Depending on the stage of development, the roentgenographic appearance of silicosis is more or less definite, although it must be differentiated from miliary tuberculosis, metastatic carcinoma which has spread through the pulmonary lymphatics, the fungus infection histoplasmosis and siderosis.[23] If a diagnosis of silicosis is established and the involvement is not symmetric, care should be taken to rule out the presence of the tubercle bacillus, which sooner or later complicates most cases of silicosis. Uncomplicated silicosis will exhibit much less involvement of both lung bases. Another industrial inhalant disease, berylliosis, has become somewhat prevalent in recent years.[24] Beryllium, which produces berylliosis, is used in fluorescent lamps. The roentgenographic signs of berylliosis are not as yet fully established.

Atypical Pneumonia.—A few persons have atypical or virus pneumonia without acute symptoms.[25] The disease may then be discovered through survey roentgenograms or through a roentgenogram taken because of vague pulmonary complaints. In these circumstances the roentgenographic appearance of virus pneumonia is most likely to be confused with that of tuberculosis. Frequent serial roentgenograms will aid in the differential diagnosis by permitting visualization of changes in the shape and location of the parenchymal infiltration, which can be present as long as six to eight weeks. By the time the virus pneumonia has been present for a few weeks, cold agglutinins can generally be demonstrated in the patient's serum. Their presence is not specific for virus pneumonia but strongly suggests the diagnosis.

Fungus Diseases.—The organisms which cause coccidioidomycosis are sharply confined in their geographic distribution to the southwest portion of the United States.[26] A person who has never been in this part of the country will not have coccidioidomycosis. The organisms which produce histoplasmosis have a much wider distribution but in this country are most prevalent in a central belt which extends from Kansas City, Kan., to the Atlantic Coast.[27] A repeatedly negative reaction to a skin test with coccidioidin or histoplasmin rules out the respective disease, with the limitations discussed in the section on skin tests. A positive reaction to a coccidioidin or histoplasmin skin test with a negative tuberculin reaction is strong presumptive evidence that the pulmonary lesion is coccidioidomycosis or histoplasmosis, as the case may be. The organisms which produce these two diseases are difficult to find by culture except early in the course of the disease. In cases in which these diseases are suspected, an effort to culture the organisms should be made if sputum is present. Both diseases produce antibodies, and studies should be made for them, as indicated previously. On many occasions the physician will be confronted with a situation in which the reaction to the cocidioidin or histoplasmin skin test as well as to the tuberculin skin test is positive and in which no organisms can be demonstrated in the sputum nor any antibodies in the blood. The roentgenographic appearance of coccidioidomycosis and histoplasmosis (fig. 5) mimic that of tuberculosis closely. When there is hilar or mediastinal lymphadenopathy combined with a tuberculous-like peripheral lesion, the evidence then points to coccidioidomycosis or histoplasmosis.[28] In certain cases the diagnosis will remain in doubt unless in the judgment of competent observers an exploratory thoracotomy seems indicated.

Chronic Suppurative Lung Diseases.—Chronic lung abscess is usually a sequela of acute lung abscess. The acute disease may have been undiagnosed. Chronic lung abscess can exist for years without serious consequences to the patient. The course of chronic lung abscess is characterized by remissions and exacerbations.[29] The exacerbations frequently are associated with infections of the upper part of the respiratory tract, and it is at such times that the true nature of the disease is suspected. Sputum cultures which are negative for the tubercle bacillus and for fungi, physical examination of the lung and bronchoscopic and bronchographic examination will generally establish the diagnosis. The roentgenographic appearance of chronic lung abscess and chronic suppurative lung disease are fairly definite. The former, when typical, shows a cavity, a persistent fluid level and a thick or thin wall. The latter may show thickened trunk shadows, some peribronchial inflammation, patches of localized atelectasis and increased density of hilar shadows. The use of penicillin and sulfadiazine usually produces rapid amelioration of such symptoms as fever, cough and sputum. The treatment of chronic lung abscess is excision, as a rule by lobectomy. Chronic empyema is sometimes associated with chronic lung abscess, or it may occur alone.

21. Clagett, O. T.: Surgical Treatment of Emphysematous Bleba and Bullae, Dis. of Chest **15**: 669-681 (June) 1949. Niehaus, R. F.: Simple Spontaneous Pneumothorax in Apparently Healthy Individuals, Report of 24 Cases, Am. J. Roentgenol. **57**: 12-27 (Jan.) 1947.
22. Norris, G. W., and Landis, H. R. M.: Diseases of the Chest, Philadelphia and London, W. B. Saunders Company, 1938, p. 362.
23. Johnstone, R. T.: Occupational Medicine and Industrial Hygiene, St. Louis, C. V. Mosby Company, 1948.
24. Machle, W.; Beyer, E., and Gregorius, F.: Berylliosis, Occup. Med. **5**: 671-683 (June) 1948.
25. Reimann, H. A.: Viral Pneumonias and Pneumonias of Probably Viral Origin, Medicine **26**: 167-219 (May) 1947.
26. Smith, C. E.: Coccidioidomycosis, M. Clin. North America **27**: 790-807 (May) 1943.
27. Palmer, C. E.: Geographic Differences in Sensitivity to Histoplasmin Among Student Nurses, Pub. Health Rep. **61**: 473-487 (April 5) 1946.
28. Clark, D., and Gilmore, J. H.: A Study of 100 Cases with a Positive Coccidioidin Skin Test, Ann. Int. Med. **24**: 40-59 (Jan.) 1946. Furcolow, M. L.; Mantz, H. L., and Lewis, L.: The Roentgenographic Appearance of Persistent Pulmonary Infiltrates Associated with Sensitivity to Histoplasmin, Pub. Health Rep. **63**: 1711-1718 (Dec. 5) 1947.
29. Shaw, R. R., and Paulson, D. L.: Pulmonary Resection for Chronic Abscess of the Lung, J. Thoracic Surg. **17**: 514-522, 1948. Harper, F. R.; Condon, W. B., and Wierman, W. H.: Suppurative Disease of the Lungs, Arch. Surg. **58**: 819-832 (June) 1949.

There is a history of an acute pulmonary infection which slowly subsided over a period of weeks. The roentgenographic appearance of uncomplicated empyema is fairly distinct. It may be possible to aspirate pus from the empyema. Treatment is surgical, with drainage to the exterior.

Nonspecific Pneumonitis.—The pathogenesis of chronic nonspecific pneumonitis is obscure.[30] In some instances it may represent a lung abscess that has filled in with granulation tissue. In other cases it may be an area of atelectasis that was infected and later partially fibrosed. The fatty, or cholesterol, changes which occur are probably similar to those seen in many chronic lung diseases. The roentgenographic appearance of chronic nonspecific pneumonitis is not distinct and is confused most frequently with that of tuberculosis and carcinoma (fig. 1). The lesion occurs more often in the middle lobe of the right lung or lingular segment of the upper lobe of the left lung than elsewhere. When this lesion is suspected in persons over 30 years of age, it is best that surgical exploration with the object of removal be done, because the lesion might be malignant.

Atelectasis.—This may involve all or part of a lung and is usually an acute process. On occasion, during

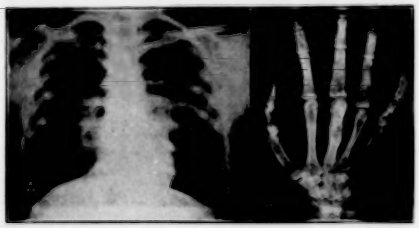

Fig. 6.—Roentgenogram of the chest of a 17 year old Negro boy, showing typical sarcoid. The diagnosis was further confirmed by biopsy of cervical lymph nodes.

attacks of asthma, bronchitis or infection of the upper part of the respiratory tract, a bronchus may become plugged with mucus or inflammatory exudate, with collapse of that portion of the lung distal to the bronchus, in which the process may be chronic. For one reason or another, the area of atelectasis may require some time to become aerated. The roentgenographic appearance and behavior are not unlike those of atypical pneumonia except that if the atelectatic area is large enough it will cause mediastinal shift or a high hemidiaphragm on the side of the involvement. Serial roentgenograms will generally demonstrate the gradual disappearance of the lesion, usually in a matter of a few weeks. Areas of atelectasis may not always resolve.

Fibrosis and Emphysema.—Diffuse bilateral pulmonary fibrosis is seen in older persons, who often have a history of chronic bronchitis.[31] In some persons there is no prior history of pulmonary complaints. In such patients fibrous tissue seems to form more readily than is normal. The roentgenographic appearance of intensified and distorted trunk shadows is typical, but first stage pneumoconiosis should be ruled out. The latter will generally show clearer bases. Pulmonary emphysema, sometimes called hypertrophic emphysema, can develop under any circumstances in which all or a portion of the lung is chronically overly distended.[32] It will also develop if the pulmonary blood supply is diminished and in older persons as part of the aging process. The roentgenographic appearance is distinct, showing increased radiability and flattened hemidiaphragm. Bullous emphysema or cystic disease can be confused with hypertrophic emphysema.

Sarcoidosis.—Sarcoidosis is a systemic disease with frequent pulmonary manifestations.[33] The typical pathologic process involves the lymph nodes in the thoracic cavity and the lungs. There may be a few or no symptoms. The roentgenographic appearance is that of hilar or mediastinal adenopathy and, occasionally, irregular patchy infiltration in one or both lungs (fig. 6). If there is no bone or skin involvement in a patient with sarcoidosis, the disease may be suspected if there is an elevation of the serum protein. The diagnosis is made by means of biopsy of a superficial or intrathoracic lymph node. Sarcoidosis is confused with tuberculosis, lymphoma, carcinoma, coccidioidomycosis and active histoplasmosis. In sarcoidosis the reaction to the tuberculin skin test is frequently negative.

Lymphomas.—Of the group of diseases classified under the term lymphomas, Hodgkin's disease is the most common.[34] The disease involves the lymph nodes of the hilar structures and the mediastinum. The problem of the diagnosis of lymphomas is similar to that of sarcoidosis, including the roentgenographic characteristics. However, with a lymphoma there is less chance that the parenchyma will be involved. The diagnosis is made by biopsy of an involved lymph node. The lymphomas are sensitive to the effects of roentgen therapy and in some instances shrink rapidly when it is applied. This procedure has been used as a diagnostic test but is unreliable. The rapidity with which the various lymphomas shrink under roentgen therapy varies considerably. Most persons prefer to have definite knowledge about such a potentially serious disease, and for this group exploratory thoracotomy can provide the answer without unwarranted risk.

Metastatic Neoplastic Disease.—Metastatic carcinoma discovered in the roentgenogram of the chest without evidence of a cancer elsewhere is rare. The usual roentgenographic appearance of a metastatic carcinoma is that of multiple round or nodular lesions the size of a pea or larger throughout the lung fields. With this observation it is usually not difficult to locate the primary carcinoma. Infrequently a carcinoma will metastasize to the lungs through the pulmonary lymphatics and be first discovered in the roentgenogram of the chest. The pattern of this type of spread is readily confused with that of hematogenous tuberculosis, histoplasmosis, siderosis and pneumoconiosis. Metastatic carcinoma develops in the interstitial tissues of the lungs and for this reason does not shed cells into the bronchi as readily as does bronchogenic carcinoma. The procedure of finding malignant cells in the sputum or bronchial washings is not particularly rewarding in this condition. The diagnosis is frequently not made until late in the course of the disease. In our

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34. Jackson, H., Jr., and Parker, F., Jr.: Hodgkin's Disease: Clinical Diagnosis, New England J. Med. **234**:137-41 (Jan. 10) 1946.

experience the primary carcinoma is usually small and is found in the abdomen.

Leukemia and Collagen Diseases.—Leukemia and the collagen diseases have little in common and are grouped together largely for the sake of convenience. In the careful study of a patient, leukemia and polycythemia vera would be discovered in the great majority of persons from findings in the history, physical examination and ordinary laboratory tests. The collagen diseases, disseminated lupus and periarteritis nodosa should also be detected or at least suspected from observations made in the general examination. The roentgenographic appearance in the chest of the collagen diseases is not uniform or characteristic and may vary from an increase in the lung markings to different-sized areas of increased density in one or both lungs. Small multiple densities with generalized distribution accompanied by eosinophilia may be a pulmonary manifestation of periarteritis nodosa. Eosinophilic pneumonopathy (Loeffler's syndrome) [35] is not too well understood but is thought to be an area of pneumonic infiltration on an allergic basis. The lesion is often temporary, and serial roentgenograms show its rapid disappearance. There is usually a definite increase of eosinophils in the blood.

Passive Congestion.—Whenever there is a question of circulatory changes affecting the lungs, a diagnosis other than congestion should be made with caution. Circulatory congestive changes can appear in the apexes of the lungs as well as in the hilar regions and at the bases. There have been many patients treated for pulmonary tuberculosis when in reality they had mitral stenosis and insufficiency. The problem can become complex and difficult when a patient has both chronic passive congestion and bronchogenic carcinoma or tuberculosis. The point to be reemphasized is, however, that positive evidence for a diagnosis of tuberculosis or carcinoma should be at hand when pulmonary circulatory congestive changes are possible. In most instances it is a relatively simple matter, through the use of oxygen, digitalis, salt restriction and bed rest, to at least temporarily relieve a failing heart and clear up the lung changes. Chronic uremia may be more difficult to treat. Pulmonary changes visible in the roentgenogram in uremia can be bizarre and persistent. The roentgenographic appearance of early passive congestion is a symmetric intensification of trunk shadows usually accompanied with an increase of more than 10 per cent in the transverse measurement of the cardiac silhouette. Later there may be fluid at the base of the right lung or at the base of both lungs.

Diaphragmatic Hernia.—Diaphragmatic hernia should be suspected in any pulmonary lesion which is continuous with the diaphragm. A barium swallow, a gastrointestinal roentgen study with barium or, rarely, pneumoperitoneum will demonstrate the defect in the diaphragm. Occasionally paresis of the hemidiaphragm will be confused with diaphragmatic hernia.

Benign Intrathoracic Tumors.—Characteristically, early benign tumors are sharply demarcated in the roentgenogram. A bronchial adenoma [36] and a hamartoma are alike in occurring throughout the bronchial tree. A bronchial adenoma frequently bleeds. A dermoid cyst arises near the anterior mediastinum. A neurofibroma is found in the extreme posterior portion of the thoracic cavity. A substernal thyroid commonly surrounds or lies near the trachea. All these tumors can be confused with other round lesions and should be removed. As indicated, any of them can undergo malignant degeneration.

SUMMARY

Because of the growth of mass roentgenographic surveys of the chest with small photoroentgen films, hundreds of thousands of persons are reached by this procedure. The method is accurate enough to detect most lung abnormalities in the early stages. The patient's physician is then faced with the problem of the evaluation of a chronic pulmonary lesion which causes few or no symptoms.

It is pointed out that any chronic pulmonary lesion is primarily suspected of being tuberculosis and is always potentially dangerous. The procedures which are ordinarily used to arrive at a diagnosis and a brief discussion of the differential diagnoses of the more common chronic pulmonary diseases are given.

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IMMEDIATE CHOLANGIOGRAPHY

Indications, Technic and Illustrative Cases

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and
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Complicated and obscure lesions of the biliary tract which cause obstruction offer some of the most difficult management problems in surgery. Many methods of handling these lesions have been advocated: direct anastomosis of the common bile duct by Lahey [1] and Cattell [2]; vitallium* tube repairs by Pearse [3]; Roux Y jejunostomy by Cole [4] and Allen,[5] and hepaticoduodenostomy or choledochoduodenostomy by Walters [6] and others.[7]

It is not our purpose in this paper to discuss the pros and cons of these methods but to present and advocate the use of immediate cholangiography as a simple, safe and reliable method of determining the anatomic lesion. By this means a more accurate diagnosis can be made, and better judgment in selecting the proper operative procedure is possible. The early development and some of the present uses of cholangiography are embodied in the papers of Best,[8] Counseller and McIndoe,[9] Mirizzi [10] and others.[11]

Dr. Carter is a fellow of the American College of Surgeons.

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3. Pearse, H. E.: Benign Stricture of the Bile Ducts Treated with a Vitallium Tube, Surgery **10**: 137 (July) 1941.

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6. Walters, W., and Phillips, S. K.: Physiologic Aspects of Repaired Stricture of the Extrahepatic Bile Ducts: Report on One Hundred and Sixty-Five Cases, Proc. Staff Meet. Mayo Clin. **24**: 12 (Jan. 5) 1949. Walters, W.: Strictures and Injuries of Bile Ducts: A Study of Results of Operations in Eighty Cases, J. A. M. A. **113**: 209 (July 15) 1939.

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9. Counseller, V. S., and McIndoe, A. H.: Dilatation of the Bile Ducts (Hydrohepatosis), Surg., Gynec. & Obst. **43**: 729 (Dec.) 1926.

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INDICATIONS AND TECHNIC

Although some, among others Partington and Sachs,[12] have used cholangiography routinely at operation, we feel it should certainly be used: (1) whenever a congenital lesion of the biliary tract is suspected; (2) whenever the indications for the exploration of the common bile duct are vague or uncertain, and (3) in all secondary operations on the biliary tract for stricture of any part of the bile ducts or for suspected stones in the common duct.

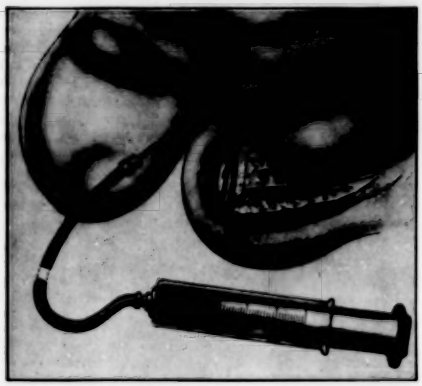

Fig. 1.—The most commonly used method (needle in common bile duct) of injecting the iodopyracet. The tip of the long needle is bent to a suitable angle by the surgeon, facilitating its insertion and maintenance in the common duct.

The necessary materials are available in any operating room. They consist of a 60 milliampere, 70 kilovolt portable X-ray machine, a plywood tunnel for the cassettes, 14 by 17 inches (36 by 43 cm.), a 12 inch (30 cm.) piece of 14 gage French rubber tubing with adapters, an assortment of ordinary intravenous needles, gages 17 to 20, and sterile ampules of 35 per cent iodopyracet injection. The region should be well exposed and the biliary structures dissected out thoroughly. Incision into the gallbladder or bile ducts should be done after the roentgenogram has been taken.

The various methods of cholangiography that may be employed are illustrated in figures 1 and 2. These methods are explained in the captions. The most generally employed and most useful method is that in which the dye is injected through a needle into the common bile duct. Cholecystocholangiograms may fail to show the common duct distinctly. When the cystic duct is narrowed, the flow of dye from the gallbladder into the common duct may be retarded or prevented altogether. The needle, usually 19 gage, connected to a syringe by the tubing and adapters, is inserted into the common duct. The identity is always confirmed by the aspiration of bile. The ducts are then emptied of bile. Five to 10 cc. of iodopyracet injection is slowly administered, with the anesthetist carefully checking the patient's pulse and blood pressure for signs of shock from overdistention. A roentgenogram is then made while the patient is in respiratory arrest. Two additional films are made, each immediately after the injection of an additional 5 cc. of iodopyracet.

12. Partington, P. F., and Sachs, M. D.: Routine Use of Operative Cholangiography, Surg., Gynec. & Obst. 87:299 (Sept.) 1948.

If the biliary tract is divided into two or more segments, each portion may be similarly delineated by injection and roentgenogram. No serious toxic reaction to iodopyracet or its injection under slight pressure during anesthesia, with careful observation of the patient, has occurred.

REPORT OF CASES

Case 1.—*Congenital Common Duct Stenosis.*—J. H., a 2½ year old white girl, was admitted to the New York Post-Graduate Hospital on Oct. 17, 1949 with recurrent lethargy, jaundice and pain in the right upper abdominal quadrant of six months' duration. The onset had been characterized by anorexia, lethargy, pain in right upper quadrant and occasional vomiting. The original episode lasted three days and terminated spontaneously. There was a recurrent episode three months later of three weeks' duration. A low grade jaundice was noted on the tenth day, and fever developed in the third week. Stools became clay colored and hard. Three weeks before admission to the Post-Graduate Hospital the patient became extremely lethargic, with decided anorexia and pain in the right upper quadrant. She was hospitalized elsewhere, where low grade fever, jaundice, clay-colored stools and dark urine were noted. The fever subsided after penicillin therapy.

Physical examination showed a well nourished and well developed white girl, lethargic and moderately ill but in no acute distress. The liver edge was palpable 2 fingerbreadths below the costal margin. The spleen was not palpable. The first impression was that of a cyst of the common bile duct (from the history) or recurrent infectious hepatitis.

Laboratory examination on October 18 revealed the following conditions: The urine contained acetone (1 plus) and 5 to 9 white blood cells per high power field; the red blood cell count was 3.5 million; the hemoglobin content was 9.7 Gm., and the white blood cell count was 10,450. Bile was obtained in moderate concentration by duodenal drainage. Bile amylase was 0.27 Gm. per hundred cubic centimeters, and bile lipase was 2.6 cc. of twentieth-normal solution of sodium hydroxide. Cultures of the bile were negative. Tests of the blood showed: icterus index, 10.9 units; serum bilirubin, trace; cholesterol, 260 mg. per hundred cubic centimeters; cholesterol esters, 145 mg. per hundred cubic centimeters; cephalin-cholesterol flocculation test reaction, negative; thymol turbidity, 2 units; alkaline phosphatase, 7.9 Bodansky units, and total serum protein, 6.1 Gm. per hundred cubic centimeters. The temperature of the patient on admission was 104 F. This became normal on the third day. The child underwent operation on the fifth day.

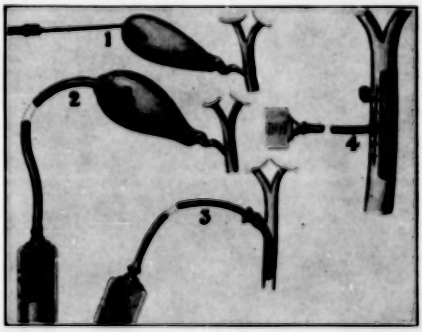

Fig. 2.—*1*, cholecystocholangiogram made with the use of a needle; *2*, cholecystocholangiogram made with the use of a mushroom catheter; *3*, choledochocholangiogram made with the use of a catheter, and *4*, choledochocholangiogram made with the use of a T tube.

Cholangiographic examination was performed at operation. A stomach tube was seen in situ. There was decided distention and sacculation of the entire biliary system, including the ducts and gallbladder, which continued to a point about 1 cm. from

the ampulla of Vater, where a constriction was seen. The pancreatic duct and the common duct joined at this location (fig. 3). There was partial obstruction at the site of junction of the common duct with the pancreatic duct, with the dye appearing in the duodenum ten minutes after injection.

Cholecystoduodenostomy and cholecystostomy were performed October 31. On the sixth postoperative day jaundice was noticeably less, and it had cleared completely by the tenth day. The cholecystostomy tube was clamped on the thirteenth postoperative day, and the tube was removed and the patient discharged on the twenty-first postoperative day. The patient is free of symptoms and has no evidence of jaundice at the time of writing, thirteen months after operation.

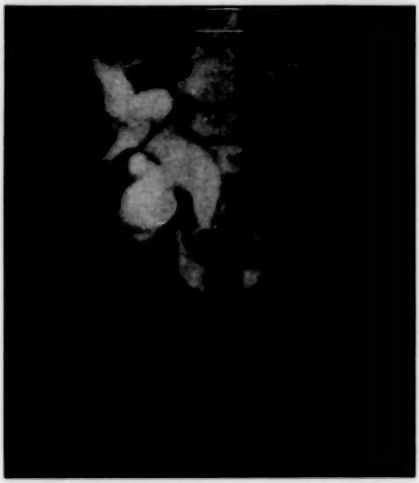

Fig. 3 (case 1).—Cholangiogram, made at operation, revealing enormous distention of the biliary tree and the gallbladder. The union of the common duct with the pancreatic duct before entrance into the duodenum may be seen. Some dye has passed through the papilla and is present in the duodenum.

CASE 2.—*Retained Stone in the Common Duct and "Regenerated" Gallbladder.*—H. H., a 41 year old woman, was admitted to the New York Post-Graduate Hospital on April 6, 1948 with recurring attacks of pain in the right upper abdominal quadrant radiating to the back, nausea and vomiting.

The history on admission revealed that the patient had had a cholecystectomy done elsewhere fifteen months previously and has had recurrent attacks of pain in the right upper quadrant, nausea and vomiting since. There had been no jaundice, dark urine or clay-colored stools. Roentgenograms outlining the gallbladder were taken before the present admission. The blood pressure on physical examination was 130 systolic and 90 diastolic. The patient was a well developed and fairly well nourished, middle-aged white woman. There was a well healed paracostal scar in the right upper quadrant and tenderness to palpation throughout the right upper quadrant. The impression was that of "regeneration" of the gallbladder (from the history and the roentgenograms).

Laboratory examination revealed the following conditions: icterus index, 4.8 units; bilirubin, slight trace; cholesterol, 220 mg. per hundred cubic centimeters; cholesterol esters, 96 mg. per hundred cubic centimeters; cephalin-cholesterol flocculation test reaction, negative; thymol turbidity, 2 units; alkaline phosphatase, 3.0 Bodansky units; total serum protein, 7.0 Gm. per hundred cubic centimeters; amylase, 2.09 Gm. per hundred cubic centimeters, and lipase, 0.2 cc. of twentieth-normal solution of sodium hydroxide. The urine was normal, and a culture of the bile from the gallbladder was negative. Reactions to tests made on a bile specimen obtained at operation showed: amylase, negative; lipase, negative; protease, negative; cholesterol, 480 mg. per hundred cubic centimeters; bile salt, 1,768 mg. per hundred cubic centimeters, and bilirubin, 65 mg. per hundred cubic centimeters.

The patient underwent operation on April 8. The gallbladder remnant was the size of a small gallbladder. The common bile duct was moderately distended, but no stones were palpable.

Twenty cubic centimeters of iodopyracet injection was introduced into the gallbladder after 15 cc. of bile had been aspirated. A roentgenogram was taken which showed the gallbladder to be distended, with no negative shadows and poor filling of the common duct. Some of the dye was seen to have entered the small intestine. The outline of the common duct was not visible. The gallbladder dye was then removed. The common duct was aspirated, and 10 cc. of reddish-hued bile with considerable detritus was obtained. This was replaced with 15 cc. of iodopyracet injection. A roentgenogram revealed the outline of the common duct, which had a negative shadow at the lower end. The sphincter was normal. The gallbladder was freed to the cystic duct. The common duct was opened, and a small brown stone was removed from the lower end. A Blake forceps passed freely into the duodenum. The gallbladder was removed and a T tube was inserted into the common duct.

The postoperative course was uneventful and afebrile. On April 9, eleven days after the operation, a repeat cholangiogram was done. Filling was rapid and complete. No stones or strictures were seen. At ten minutes the roentgenogram showed emptying of the biliary tree. The patient was discharged on the fourteenth postoperative day and is perfectly well at the time of writing, one and a half years after operation.

CASE 3.—*Cystic Duct Remnant Producing Obstruction of the Common Duct.*—V. P., a 42 year old woman, was admitted to University Hospital on May 9, 1949 with severe epigastric pain. This had been present ever since a cholecystectomy which had been done two years previously. The patient had had epigastric pain following meals and occasional attacks of nausea and vomiting. One week before admission she had jaundice, clay-colored stools and dark urine. There was no weight loss.

Fig. 4 (case 3).—Cholangiogram, made at operation, showing the needle in the common duct. The distention of the common duct above the point of entry of the cystic duct remnant, which crosses the common duct and enters it on the left side, producing obstruction, may be seen. A small stone found in the cystic duct remnant was not visualized in this roentgenogram.

Physical examination showed the blood pressure to be 130 systolic and 74 diastolic. The patient was a chronically ill, slightly built, middle-aged woman with no evidence of icterus. There was a well healed right rectus scar. There was slight epigastric tenderness (the only abnormal condition) but no rigidity. The first impression was that of a stone in the common duct.

Laboratory examination revealed the following reactions to tests of the bile: amylase, negative; lipase, negative, and protease, negative. Cultures of the bile revealed Alcaligenes fecalis and Aerobacter aerogenes. The urine was normal. A cholangiogram made at operation revealed dilatation of the bile ducts proximal to a cystic duct remnant which crossed the common duct (fig. 4). This was not visible at operation because it was enclosed in the "sheath" of the common duct.

Choledochostomy and resection of the cystic duct was performed on May 10. Dissection confirmed the roentgen findings. The common duct was dilated above the point of entry of the cystic duct, which crossed the common duct anteriorly and entered on the left side. A soft stone was palpable in the cystic duct remnant. The cystic duct remnant was removed completely. The common duct was explored, and a moderate amount of calcium bilirubinate sediment was removed. No stones were found. A T tube was placed in the common duct after dilatation of the sphincter of Oddi, which was moderately spastic.

A delayed cholangiogram on the fourteenth day revealed slight distention of the common duct and hepatic ducts, with slight spasm of the sphincter of Oddi. There was no evidence of lithiasis. There was patency into the duodenum, with moderate retention of the dye in the biliary duct system after ten minutes, which was probably secondary to the spasm of the sphincter. The patient has been well except for two minor episodes of pain in the right upper quadrant. The T tube was removed Nov. 9, 1949, six months after operation.

SUMMARY

A simple, reliable and safe method of determining the exact configuration of anatomic lesions of the biliary tract has been described. The use of immediate cholangiography has been recommended in congenital obstructions of the biliary duct, in those obstructions due to calculi or stricture and whenever there are indications for exploration of the common bile duct. Cases illustrative of the usefulness of immediate cholangiography in these situations have been described.

ACUTE NONSPECIFIC BENIGN PERICARDITIS

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Although several small series of cases of acute nonspecific pericarditis have been reported in recent years, there are several points of interest in this series of 11 cases seen in private practice in a subtropical climate. Eight were seen in one year. The disease doubtlessly occurs more frequently and is more widely spread than is generally suspected and in many instances is misdiagnosed as coronary occlusion. The differential diagnosis usually is not difficult if one keeps the possibility of acute pericarditis in mind. The importance of specific diagnosis is obvious, because immediate and ultimate prognosis as well as management in acute pericarditis is different from that in coronary occlusion.

Barnes and Burchell [1] stated that acute benign nonsuppurative pericarditis is an important problem and that there must be instances in daily practice in which the lack of appreciation of distinctions results in pericarditis being mistaken for acute coronary occlusion. In fact, three papers on acute pericarditis simulating acute coronary disease have been published in recent years.[2] Logue and Wendkos [3] recently stated that it was their impression that the benign form of acute pericarditis is still not well known and that cases are being overlooked.

Pain has been the outstanding symptom in all reports, and aggravation of pain by respiration and body movements such as twisting or turning or even swallowing has been emphasized.[4] This association is extremely important because it rarely occurs in coronary occlusion, especially in early cases. Several authors described pain referred to the shoulder.[5] Pain referred to one or both arms was mentioned by Wolff [2a] and by Logue and Wendkos.[2] Wolff also stated [6] that the pain was sometimes referred down the inner aspect of the arm. According to White,[7] pain may be absent if the pleural pericardium or the outer border of the diaphragmatic pericardium is not involved.

Pain was present in all 11 patients in this series and was substernal in 7. It was aggravated by body motion or deep inspiration in 10. Intensity varied from slight to severe, the onset from gradual to sudden. The onset was sudden in 8 patients, 4 of whom appeared pale and clammy and felt acutely ill. Pain was referred to the left shoulder in 2, the left shoulder and left arm in 2, the inner aspect of the left arm in 1, the right upper abdominal quadrant in 1, the epigastrium in 1, the epigastrium and left upper quadrant in 1 and the left upper quadrant alone in 1.

A pericardial friction rub may or may not be audible [8] or may be faint and limited to a certain phase of respiration.[7] The frequency of its occurrence, of course, will vary with the carefulness with which it is looked for. When a pericardial rub appears in the course of myocardial infarction, it is more likely to be localized and appear after several days or a week.[9] A pericardial friction rub was noted early in 10 cases and on the first day in 8. A widespread pericardial rub was noted by me the first day I saw 2 of the other 3 patients, 1 of whom was seen during an exacerbation fifteen days after the onset of illness. A localized rub was also heard in another the first day I saw him, which was three days after the onset of severe pain. The rub was loud and widespread in 5 patients, but it would not have been found in the remaining 5 had it not been suspected and carefully looked for. In the 5 patients with loud rubs, the rub could be heard for three to seven days. In the 5 with faint rubs, it was audible for only one or two days and was limited to a small area beneath or just to the left of the sternum. In 2 of the 5, it could only be heard as a scratching sound in systole during inspiration.

Fever of variable degree has been reported in all series. It was present in all cases in this series and was of mild to moderate degree.

Penicillin was given to 8 patients and appeared to be effective in 7. In 1 of these the effect was dramatic. The effect of penicillin was impossible to evaluate, however, because the disease is self limited and its course

1. Barnes, A. R., and Burchell, H. B.: Acute Pericarditis Simulating Acute Coronary Occlusion: A Report of Fourteen Cases, Am. Heart J. **23**: 247, 1942.

2. (a) Wolff, L.: Acute Pericarditis Simulating Myocardial Infarction, New England J. Med. **230**: 422, 1944. (b) Coffen, C. W., and Scarf, M.: Acute Pericarditis Simulating Acute Coronary Occlusion, Am. Heart J. **32**: 515, 1946. (c) Barnes and Burchell.[1]

3. Logue, R. B., and Wendkos, M. H.: Acute Pericarditis of Benign Type, Am. Heart J. **36**: 587, 1948.

4. (a) Bing, H. L.: Epidemic Pericarditis, Acta med. Scandinav. **80**: 29, 1933. (b) Finkelstein, D., and Klainer, M. J.: Pericarditis Associated with Primary Atypical Pneumonia, Am. Heart J. **28**: 385, 1944. (c) Nathan, D. A., and Dothe, R. A.: Pericarditis with Effusion Following Infections of the Upper Respiratory Tract, Am. Heart J. **31**: 115, 1946. (d) Nay, R. H., and Boyer, N. H.: Acute Pericarditis in Young Adults, Am. Heart J. **32**: 222, 1946. (e) Smalley, R. E., and Ruddock, J. C.: Acute Pericarditis: A Study of Eighteen Cases Among Service Personnel, Ann. Int. Med. **23**: 799, 1946. (f) Barnes and Burchell.[1] Wolff and Coffen and Scarf.[2] Logue and Wendkos.[3]

5. Barnes and Burchell.[1] Wolff.[2a] Finkelstein and Klainer.[4b] Nathan and Dothe.[4c] Nay and Boyer.[4d] Smalley and Ruddock.[4e] Logue and Wendkos.[3]

6. Wolff, L.: Personal communication to the author.

7. White, P. D.: Heart Disease, ed. 3, New York, The Macmillan Company, 1944.

8. Footnote 4. Wolff.[6] White.[7]

9. Nay and Boyer.[4d] White.[7]

frequently brief.[10] Logue and Wendkos [3] stated that there was no specific treatment.

Associated or recent respiratory infections,[11] which are frequently mentioned, not only are important from an etiologic viewpoint but give a clue to the diagnosis. A history of recent respiratory infections was given by 5 patients in this series. Roentgenograms of the chest revealed pneumonitis in 2 more. An acute gastrointestinal upset preceded chest pain in 2 cases.

Ten patients had increased sedimentation rates and 9 had leukocytosis; both conditions varied appreciably and neither was extremely high. At times, rapid fluctuations were noted in both. Similar observations were made by most observers; however, Barnes and Burchell [1] rarely found an elevation of the leukocyte count.

Roentgenograms showed appreciable cardiac enlargement in 4 of the 6 hospitalized patients, although the cardiohepatic angle remained acute in each case. In 2 patients there was evidence of increased venous pressure. Pericardiocentesis was not done in any case, so it is possible that some of the enlargement was caused by dilatation of the heart. There is evidence that in some cases enlargement may be on this basis.[12] Dilatation of the left ventricle could account for the slight but not abnormal depression of the RS-T segment in lead 1 in 1 case.

Although Nathan and Dothe [4c] performed pericardial taps in their 8 patients with pericarditis and effusion, it is doubtful that such a procedure is warranted unless there is significant evidence of serious cardiac tamponade. Cultures of pericardial fluid were negative in all their cases.

Although Bing reported epidemic pericarditis,[4a] his evidence justifying this term is far from convincing. He reported 5 cases which appeared in a large hospital during the course of a year. I saw 8 cases in a moderately populated area in a subtropical climate during the course of one year. Of further interest along these lines is the fact that mild pericarditis developed in 1 patient shortly after that patient had visited another. No other possible contact transmission of the disease has been reported in the literature. It is possible that pericarditis in the 2 patients may have been fortuitous. Both cases occurred during a period when there were more respiratory infections than usual; however, the second patient had no signs or symptoms of respiratory infection.

To my knowledge, nonspecific benign pericarditis has not been reported in patients with chronic rheumatic valvular heart disease. Such a diagnosis is difficult to make, but there is no reason why both diseases occasionally should not coexist in a patient. Two such instances possibly occurred in this series. The first patient, a 61 year old woman, had probable chronic rheumatic valvular heart disease with aortic insufficiency and stenosis and mitral insufficiency. Auscultatory evidence of these lesions was present. The patient had had a sickly childhood but had no definite history of rheumatic fever or chorea. Slight aortic dissection was looked for, but the diagnosis could not be substantiated. The patient was discharged as clinically well two weeks after the onset of symptoms of pericarditis. The second patient, a 34 year old man, had mitral stenosis and gave a history of having had rheumatic fever at the age of 7. Substernal pain lasting two hours developed twenty-two hours after the onset of acute gastroenteritis, which was prevalent in the community. A temperature of 101.5 F. was present for one day, and the patient felt well thereafter. In neither case was there other evidence of a recurrence of rheumatic fever. In both patients the courses of the disease were suggestive of pericarditis rather than acute rheumatic fever. Neither had pain in the joints before or after the pericarditis, and electrocardiograms showed no prolongation of the P-R intervals. Nay and Boyer [4d] found that pain in the joints preceded the pericarditis in 22 of 25 patients with rheumatic pericarditis and that the P-R interval was prolonged in 36 per cent of these patients. At times differentiation from rheumatic carditis may be difficult or even impossible. Possibly antistreptolysin titers may be helpful in making the differential diagnosis. Unfortunately they were not checked in this series.

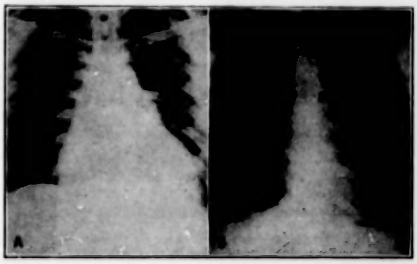

Fig. 1.—*A*, portable roentgenogram of a 30 year old man who was sufficiently ill at this time, one day after the acute onset of symptoms, to be placed on the critical list. He had a widespread pericardial friction rub, fever and an increased sedimentation rate but no leukocytosis. An electrocardiogram made at the same time as this film was normal, but later tracings showed serial changes typical of acute pericarditis. *B*, upright roentgenogram of the same patient ten days later. The changes occurred spontaneously, without pericardiocentesis. The patient was discharged from the hospital eleven days after this roentgenogram was made.

Incidentally, during the period in which these 11 cases of nonspecific pericarditis were observed, 3 cases of definite and 1 case of probable acute rheumatic carditis with pericarditis were seen. One had a prolonged P-R interval, and 3 had pain in the joints preceding the pericarditis. Two other patients with probable nonspecific pericarditis were seen relatively late in the course of the disease but were not included in this series.

A tendency to recurrence has been noted by several authors. In our series, 5 and probably 6 patients had more than one attack. The general opinion is that chronic constrictive pericarditis will not develop in these patients, but only time will tell. Paul, Castleman and White,[13] in a study of 53 cases of chronic constrictive pericarditis, found that 6 patients had had previous acute pericarditis and 3 more gave histories highly suggestive of it. The causative factor or factors in the original pericarditis remained uncertain in these 9 patients. Harrington [14] stated that 8 of 19 patients

10. Barnes and Burchell.[1] Wolff and Coffen and Scarf.[2] Bing.[4a] Nay and Boyer.[4d] Smalley and Ruddock.[4e] Logue and Wendkos.[3]

11. Willius, F. A.: Clinic on Serofibrinous Pericarditis Secondary to Acute Pharyngitis: Comment, Treatment, Cause, Proc. Staff Meet., Mayo Clin. **9**:632, 1934. Comer, M. C.: Acute Pericarditis with Effusion: A Sequel to Sinusitis, Southwest. Med. **11**:310, 1927. Barnes and Burchell.[1] Wolff and Coffen and Scarf.[2] Bing.[4a] Finkelstein and Klamter.[4b] Smalley and Ruddock.[4e] Logue and Wendkos.[3]

12. Wolff, L.: Acute Pericarditis with Special Reference to Changes in Heart Size, New England J. Med. **229**:423, 1943. Barnes and Burchell.[1]

13. Paul, O.; Castleman, B., and White, P. D.: Chronic Constrictive Pericarditis: A Study of 53 Cases, Am. J. M. Sc. **210**:361, 1948.

14. Harrington, S. W.: Chronic Constrictive Pericarditis: Partial Pericardiectomy and Epicardiolysis in 24 Cases, Ann. Surg. **120**:468, 1944.

with chronic constrictive pericarditis of unknown origin gave a history of having had one or more attacks of some pulmonary infection.

Electrocardiographic changes in our series generally conformed to those described by the authors already referred to and others,[15] with few exceptions. The

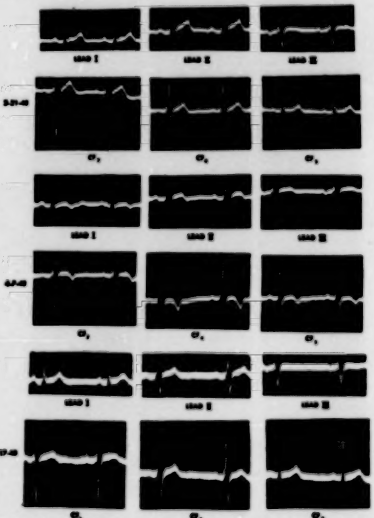

Fig. 2.—Electrocardiograms of a 39 year old man, who was awakened with extreme pain. The tracing of March 21, 1948 was taken later that same morning. The slight elevation of the RS-T segments in the limb leads and their concavity upward in leads 1 and 2 is shown in the record of March 21.

most common early change is an upward displacement of the RS-T segments in the standard leads. The most characteristic elevation occurs in all the standard leads, although it may occur in leads 1 and 2, 2 and 3 or almost exclusively in lead 1. The reciprocal RS-T changes in leads 1 and 3 seen in myocardial infarction rarely occur in uncomplicated cases of pericarditis; however, Barnes and Burchell [1] described 1 case. The RS-T segments are usually concave upward but sometimes form a straight line. The T waves tend to become higher and more peaked, although they occasionally become rounded, with a dome shape. Rounded T waves or even cove-shaped T waves similar to those seen in myocardial infarction are not uncommon as the electrocardiographic changes progress. By the time the RS-T segments return to the base line, the T waves are usually becoming inverted. Bellet and McMillan [15c] found no electrocardiographic changes in 12 of 57 cases of acute pericarditis, 7 of which were of unknown etiology. They also described a peculiar T wave inversion in the limb leads in which the downstroke of the T wave was sharp and the terminal portion of the T wave was inverted. This peculiar T wave inversion was also noted by Hermann and Schwab.[15a] All authors emphasized the lack of Q wave changes and the relatively rapid return of the tracings to normal. Precordial changes noted were quite variable, mainly because serial chest leads were not adequately studied. Alterations in lead 4 frequently simulated those in lead 1 but often did not. Most investigators emphasized the importance of serial changes. Serial tracings are especially important in cases in which there is only a slight elevation of the RS-T segments; elevations of 0.5 to 1 mm. are not uncommon in normal persons.[16] Most of the investigators also were of the opinion that electrocardiographic alterations were caused by subepicardial myocarditis.

In this series, there was no electrocardiographic change in 1 case in which the pericarditis was minimal in all respects. In the remaining 10 cases, RS-T segments became elevated in the standard limb leads in 9 and T waves became higher in 7. T waves became more peaked in 7 and rounded in 2. The RS-T segments were slightly concave upward early in leads 1 and 2 in 8 cases and in lead 3 in 3 of the 6 cases in which the main QRS deflection and T waves were upright in this lead. In 1 case, the RS-T segment in lead 1 was convex upward. In this instance, the electrocardiograms showed summation results of "left ventricular strain" pattern and pericarditis. A pattern suggestive of left ventricular strain also complicated the picture in the patient with mitral stenosis, in whom temporary mild diastolic hypertension developed during his illness. In general, as the RS-T segments returned

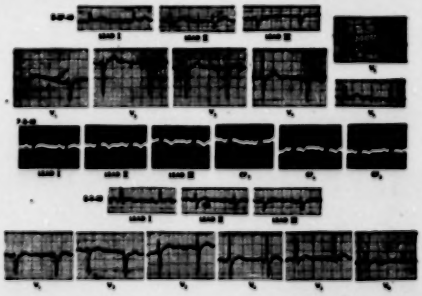

Fig. 3.—Electrocardiograms of same patient as in figure 3. The tracing of May 27, 1948 was taken after a mild flare-up of pain. That of July 8 was taken several days after a severe recurrence. Physical examination at this time revealed apparent pericardial effusion. (Black on white tracings were office electrocardiograms taken with a direct-writing portable electrocardiograph. Unipolar leads were taken but not included.)

to the isoelectric line, the T waves became lower. T waves became inverted in the standard limb leads in 5 cases. In 7 cases in which unipolar limb leads were

15. (a) Schwab, E. H., and Hermann, G.: Alterations in the Electrocardiogram in Diseases of the Pericardium, Arch. Int. Med. 55:917 (June) 1935. (b) Peel, A. A. F.: On the Occurrence of the So-Called "Coronary T Wave" in Electrocardiograms from Cases of Pericarditis, Glasgow Med. J. 122:149, 1934. Vander Veer, J. B., and Norris, R. F.: Electrocardiographic Changes in Acute Pericarditis, Am. Heart J. 14: 31, 1937. (c) Bellet, S., and McMillan, T. M.: Electrocardiographic Patterns in Acute Pericarditis Evolution: Causes and Diagnostic Significance of Patterns in Limb and Chest Leads; A Study of 57 Cases, Arch. Int. Med. 61:381 (March) 1938. (d) Vander Veer, J. B., and Norris, R. F.: The Electrocardiographic Changes in Acute Pericarditis: Clinical and Pathological Study, J. A. M. A. 112:1483, 1939. Burchell, H. B.; Barnes, A. R., and Mann, F. C.: The Electrocardiographic Picture of Experimental Localized Pericarditis, Am. Heart J. 18:133, 1939. Noth, P. H., and Barnes, A. R.: Electrocardiographic Changes Associated with Pericarditis, Arch. Int. Med. 65:291 (Feb.) 1940.

16. Grayhiel, A.; McFarland, R. A.; Gates, D. C., and Webster, F. A.: Analysis of Electrocardiograms Obtained from 1,000 Young, Healthy Aviators, Am. Heart J. 27:824, 1944. Stewart, C. B., and Manning, G. W.: Detailed Analysis of the Electrocardiograms of 500 R. C. A. F. Aircrew, Am. Heart J. 27:502, 1944.

taken, RS-T segments became depressed in a V_R in all, elevated in a V_L in 4 and elevated in a V_F in 6. There were no electrocardiographic changes in 1 case. In 1 patient there were prominent Q waves in lead 3 which varied. Unipolar limb leads were helpful in evaluating the Q wave in lead 3 and its variations.

Of the 10 patients with electrocardiographic alterations, changes occurred in the precordial leads in all. Changes predominated in the right side in 1 and the left side in 3. The right side improved as the left side became worse in 1, but the reverse was true in another.

Slight but not abnormal depression of the RS-T segments in lead 1 occurred in 1 uncomplicated case. Enlargement of the left ventricle from other causes will depress the RS-T segment in lead 1, so there is no reason why this should not occur occasionally in pericarditis. There is evidence that some enlargement may be caused by dilatation.[12] This should be expected, since many cases of uncomplicated nonspecific pericarditis are associated with infections of the upper respiratory tract. Rantz, Boisvert and Spink [17] stated that myocarditis complicated these infections in 10.8 per cent. Scherf [18] thought it occurred in 10 to 15 per cent. Gore and Saphir [19] reported 35 fatal cases of nonrheumatic myocarditis following pharyngitis and tonsillitis. Heart failure was the cause of death in all their cases.

SUMMARY AND CONCLUSIONS

1. Eleven cases of acute benign nonspecific pericarditis seen in private practice in a subtropical climate are presented. Eight were seen during one year.

2. The predominant complaint was chest pain aggravated by body motion or deep inspiration. Pain was substernal in 7 cases and severe and sudden in onset in 5.

3. A pericardial friction rub was heard early in 10 cases, although it was heard in 5 patients only because pericarditis was suspected and the rub carefully looked for.

4. Electrocardiographic changes indicative of pericarditis were present in 10 cases (slight in 1 of these). Precordial changes tended to simulate those in lead 1 but were variable.

5. Differentiation of pericarditis from acute coronary occlusion is emphasized. Serial electrocardiographic changes suggestive of pericarditis, such as absence of abnormal Q waves, absence of reciprocal RS-T changes in leads 1 and 3, exaggeration of pain by respiration or body motions and an early pericardial rub, frequently widespread, are important points in the differential diagnosis.

6. Differentiation of rheumatic carditis and pericarditis is stressed.

7. A case of possible contact transmission is reported.

8. Pericardiocentesis is not indicated unless there is evidence of serious cardiac tamponade.

9. Acute nonspecific pericarditis is doubtlessly more common and more widespread than is generally realized.

ADDENDUM

Since this paper was submitted for publication 4 more cases of acute nonspecific pericarditis have been seen. Symptoms in 1 of these occurred seven days after an operation on the sinus. Aureomycin was given to 2 patients. The course was uneventful but was no better than that of several other patients in the series. No evidence of rheumatic heart disease has appeared in any of the patients in this series since they were first seen.

17. Rantz, L.; Boisvert, P. J., and Spink, W.: Etiology and Pathogenesis of Rheumatic Fever, Arch. Int. Med. **70**:131 (Sept.) 1945.

18. Scherf, D.: Myocarditis Following Acute Tonsillitis, New York M. Coll. & Flower Hosp. Bull. **2**:252, 1940.

19. Gore, I., and Saphir, O.: Myocarditis Associated with Acute Nasopharyngitis and Acute Tonsillitis, Am. Heart J. **34**:831, 1949.

LIPOMELANIC RETICULOSIS

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Our interest in this subject was first aroused in 1939 after the performance by one of us (C.M.A.) of an autopsy on a patient with generalized pigmentation and enlargement of the lymph nodes (case 1). This patient had been studied during life and was thought to have had a melanocarcinoma, probably arising from the bowel. At autopsy it was evident that the patient had died of uremia. However, the causes of the generalized pigmentation and the peculiar changes in the lymph nodes were not evident. Careful survey of the literature finally revealed a report in 1937 in the French literature, by Pautrier and Woringer,[1] on 11 cases of what they termed lipomelanic reticulosis. A second case (case 2) was observed by us in which eosinophilia and enlargement of the lymph nodes had at first occasioned the clinical diagnosis of Hodgkin's disease. Since then the diagnosis of lipomelanic reticulosis has been made in other cases by a limited number of dermatologists familiar with the cases mentioned. However, in some areas in this country, this disease is not recognized. Since the first report,[1] it has been described only twice in American literature.[2] Soloff [3] described observation of atypical lymph nodes at autopsy in a case of acute miliary tuberculosis in 1941. Laipply,[4] in 1948, described 6 cases seen in Cleveland and Chicago. This condition is still frequently confused with Hodgkin's disease and other lymphoblastomas. Yet, as the French authors pointed out, it is entirely benign, and the essential point is the distinction between it and the previously mentioned diseases. For this reason it becomes of importance to internists, dermatologists and pathologists.

Most dermatologists with hospital ward experience have observed the occurrence of generalized lymphadenopathy associated with varied chronic long-standing dermatoses. However, this fact is usually glossed over without much thought or discussion. It is felt that while the paucity of reports would lead one to believe that this is a rare syndrome, in reality it will be found to be relatively common.

GENERAL OBSERVATIONS

In reviewing the cases we have seen, it was striking to us in retrospect that the dermatologic diagnosis, either clinical or histologic, was not clearcut. There was always considerable discussion as to diagnosis, and

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1. Pautrier, L. M., and Woringer, F.: Contribution à l'étude de l'histo-physiologie cutanée: À propos d'un aspect histo-pathologique nouveau du ganglion lymphatique; La reticulose lipo-mélanique accompagnant certaines dermatoses généralisées; Les échanges entre la peau et le ganglion, Ann. de dermat. et syph. **8**:257, 1937.

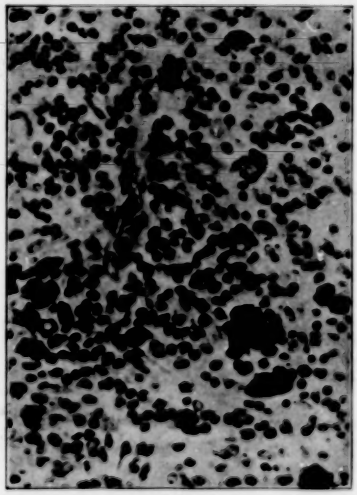
2. Since preparation of this paper for publication, an article appeared by Obermayer and Fox on the association of lipomelanic reticulosis with lichen planus. (Obermayer, M. E., and Fox, E. T.: Lipomelanotic Reticulosis of Lymph Nodes in a Case of Lichen Planus, Arch. Dermat. & Syph. **60**:609 [Oct.] 1949.)

3. Soloff, L. A.: Lipomelanotic Reticular Hyperplasia of Lymph Nodes: Report of a Case, J. Lab. & Clin. Med. **27**:343, 1941.

4. Laipply, T. C.: Lipomelanotic Reticular Hyperplasia of Lymph Nodes, Arch. Int. Med. **81**:19 (Jan.) 1948.

usually there was not unanimous agreement when the discussion was over. Diagnoses such as eczematized psoriasis, psoriasiform neurodermatitis, eczematized drug eruption or probable early lymphoblastoma (of unknown type) would be the suggested and often the final diagnosis.

The usual clinical picture was that of a generalized lichenified or eczematous eruption of several years' duration, usually with darkening of the skin. However, in a Negro there was depigmentation. Often there was loss of hair, especially of the scalp and axillas. Frequently there were changes in the nails, with thickening and discoloration and subungual thickening and hyperkeratosis. The pathologic changes in the skin varied tremendously but were usually not typical of any particular dermatosis. For instance, if the infiltrate suggested lichen planus, there would be no washing out of the basal cell layer or hypergranulosis. If the histologic appearance suggested psoriasis, the suprapapillary plates would not be thin, and there would be no Sabouraud-Monro abscesses or exocytosis. If the histologic appearance suggested neurodermatitis, there would be spongiosis and even vesicle formation, though clinically it could not be described as pityriasis rosea or nummular eczema. However, there were certain features present in most cases. There was decided pigmentation of the basal cell layer and often of the prickle cell layer also, although in a Negro with pronounced depigmentation, this was absent. In all the cases there was considerable melanin in the upper part of the cutis, either lying free or, more usually, in melanophores. Eosinophils were often found in the infiltrate of the upper part of the cutis, and frequently there was eosinophilia.



Section of a biopsy specimen from a lymph node in the patient in case 4, showing changes identical to those observed in the other 3 patients; disorganization of normal structure, hyperplasia of the reticulum cells and the presence of considerable melanin and lipoid material and many eosinophils.

The histologic changes in the lymph nodes were constant and correspond closely with those reported by Pautrier and Woringer. There was disorganization of the normal structure of the nodes, though this was usually spotty. In these areas the lymph sinuses were dilated, and often empty. There was proliferation of the reticular tissue, and many eosinophils and histiocytes were present. Melanin was present in large amounts, both free and in melanophores. No Sternberg-Reed cells were noted. Fat stains showed considerable lipoid material.

REPORT OF CASES

Case 1.—B. S., a 68 year old white man, was transferred to the Los Angeles County Hospital from another hospital in 1939 with a diagnosis of generalized melanocarcinoma of unknown origin. The melanocarcinoma was believed to have arisen from a metastasizing tumor of the bowel. This diagnosis was based on lymph node and skin biopsies. On admission to the Los Angeles County Hospital, it was learned that the patient had had a generalized, shiny, smooth, bronze pigmentation of the entire body for many years following some unknown dermatitis. In the few months prior to his admission this pigmentation had greatly increased, and the patient had been losing weight and was generally failing in health. Examination showed thickening of the skin on the palms and soles, complete absence of hair in the axillas and some thinning of the pubic hair. His nails were thickened and roughened and had some tendency toward being spoon-shaped. There were many small, discrete, firm lymph nodes palpable in the neck, axillas and groin. These varied in diameter from about 1 to 1.5 cm. Before a diagnosis could be established, the patient died of uremia. Autopsy revealed typical observations of hypertensive and arteriosclerotic heart disease and advanced nephrosclerosis, with death from uremia. In addition, the following pertinent observations were made:

There was, in the inguinal lymph nodes, a definite increase in the number of reticulum cells, clear cells with well demarcated nuclei and reticulated cytoplasm. These cells were found infiltrating the pulp sinuses and encroaching on the lymphoid follicles. There was some increase in the amount of fibrosis, but the striking feature was the presence of golden brown to black pigment scattered diffusely throughout. Special stains revealed this pigment to be melanin.

Several sections of lymph nodes from other regions showed a picture similar to that just described, except that fibrosis was much more pronounced and there was a decided increase in the amount of melanin present. A fat stain showed a considerable number of fat globules scattered throughout the nodes.

The skin was definitely atrophic, with thinning of all the layers. The prickle cell layer and especially the basal cell layer were densely infiltrated with melanin. In the corium there were many melanophores filled with pigment, as proved by silver stains.

In the liver, the central veins were somewhat thickened, and there was moderate red atrophy, with bile staining of the liver cords around the central veins. Silver stains showed dense melanin pigmentation throughout, especially around the central veins.

In the spleen, the follicles were atrophied and poorly demarcated from the pulp. The sinusoids were dilatated and empty, and the lining cells were much more plainly visible than usual. There was a moderate amount of amorphous, scattered black pigment. In the adrenal glands special stains showed the presence of many fat droplets in the cytoplasm of the cells.

Case 2.—H. A., a 68 year old white man, was first seen in the Skin Clinic of the Los Angeles County Hospital in September 1939. At that time he had a palm-sized patch of scattered lichenoid lesions on the lower medial aspect of the left leg and a crusted patch on the upper part of the left leg. He also had a violacious indurated patch on the dorsum of his hand. These lesions were thought to be neurodermatitis. A biopsy specimen taken from the dorsum of the hand showed an accumulation of round cells suggestive of lichen planus immediately beneath the epidermis. There was also a suggestive lesion on the tongue.

In December 1939 the patient was seen in the Skin Clinic with a superimposed cellulitis of the right leg. This cleared quickly, but the lichenified lesions still persisted. Biopsy of the hypertrophic patch on the leg was done, and the pathologic changes were reported as being suggestive of chronic eczema rather than lichen planus.

In January 1940 the patient was admitted to the hospital, as there was no response to treatment, which had included use of a tar paste and bismuth hydroxide. The skin of the face and extremities was erythematous, and there were lichenified lesions on the back. The patient complained bitterly of itching. The diagnosis was chronic eczematoid dermatitis. In spite of local applications of bismuth hydroxide, crude coal tar pastes, and Unna paste boots, the itching persisted and the skin lesions progressed, becoming generalized, with thickening, redness, some scaling and lichenification. On March 5 it was noted that the inguinal and axillary lymph nodes were enlarged, and the patient's temperature rose to 101 F. to 102 F. The spleen and liver were not palpable, but a diagnosis of lymphoblastoma was suggested. Results of tests of the blood are shown in the accompanying table.

Biopsy of an inguinal lymph node was done on March 12. There were changes in structure, including almost complete obliteration of the architecture of the cortical structures. Proliferation of the reticulum cells was prominent, and there were great quantities of plasma cells and eosinophils. The diagnosis was not certain, but it was thought that the patient might possibly have a lymphoblastoma, perhaps an unusual form of Hodgkin's disease, or, possibly, chronic lymphadenitis.

Results of Tests of the Blood in a Patient with Lipomelanic Reticulosis

Date	Hemoglobin *	Red Blood Cells*	Color Index	White Blood Cells	Polymorphonuclear Cells †	Lymphocytes †	Monocytes †	Eosinophils †	Basophils †	Platelets
1/31/40	160	5,360,000	1	7,800	67	18	8	7	...	.....
2/ 9/40	91	3,920,000	0.92	9,000	52	25	9	11	3	Normal
3/27/40	85	4,130,000	1.11	13,250	36.5	21.5	7.5	32	1.5	Normal
6/27/40	81	4,420,000	0.98	11,250	31.5	24	11.5	31.5	1.5	Normal

* Grams per hundred cubic centimeters.
† Percentage.

A roentgenogram of the chest showed scattered patchy infiltrations in the upper halves of both lung fields, with a questionable cavity in the right apex. This was thought consistent with far advanced pulmonary tuberculosis, partly productive and partly exudative in type. Because of this, the patient was transferred to the tuberculosis service. Here all studies for acid-fast bacilli were negative, and there was little sputum.

The skin lesions became worse, and itching was intolerable. The axillary, inguinal and epitrochlear nodes became easily palpable and firm, and, because of the inactivity of the tuberculosis, the patient was again transferred to the skin service on May 10. There a tentative diagnosis of lymphoblastoma, Hodgkin's disease or mycosis fungoides was made. Examination of an axillary node removed on April 22 showed that the normal structure was considerably disorganized, chiefly by decided hyperplasia of the reticuloendothelial cells. Many eosinophils were present, and numerous reticulum cells contained granules of brown pigment. This was probably an example of pigmentation.

Biopsy of skin from an eczematoid area on the arm was done on April 26. Examination of a section revealed a focal granulomatous infiltrate in the upper part of the cutis; it did not seem to be of tuberculous origin but might well have been a lymphoblastoma of the type of mycosis fungoides.

In the next two months most of the inflammation and thickening improved, but the skin underwent a remarkable pigmentation resembling that seen in Addison's disease. The nodes remained enlarged. The spleen and liver were not palpable, and there was eosinophilia.

Biopsy of an axillary node was done on June 24. Severe hyperplasia of the reticulum cells and moderate hyperplasia of the lymphoid follicles was observed. There were many eosinophils and plasma cells throughout and many reticulum cells were filled with brown pigment. The histologic appearance was consistent with that of so-called lipomelanic reticulosis. Fat stain showed many fine droplets and melanin stain showed black deposits in the reticulum cells.

Biopsy of skin from the thigh was done on July 13. The report indicated probable lymphoblastoma of psoriasiform histology. Sections stained for iron failed to reveal its presence.

CASE 3.—W. D., a 72 year old white man, had the onset of his illness in September 1940, with a severely pruritic rash of the ankles. This rash gradually spread over his entire body, the skin being dry, scaly and intensely pruritic. In January 1941 the skin was dark brown, thick and leathery, with loss of normal turgor. Small lymph nodes were palpable in the cervical, axillary and inguinal areas. On the extremities there were several round, firm, subcutaneous freely movable tumors of a few weeks' duration. Two had broken down, and a pus-like fluid had drained from them. The clinical diagnosis was exfoliative dermatitis with generalized lymphadenopathy, possibly with lymphoblastoma.

On January 16, tests of the blood showed: hemoglobin, 13 Gm. per hundred cubic centimeters (81 per cent); red blood cells, 4,360,000; white blood cells, 21,250, with 64.5 per cent polymorphonuclear cells, 16 per cent lymphocytes, 4.5 per cent monocytes, 14 per cent eosinophils and 1 per cent basophils; color index, 1, and platelets, normal. Subsequent tests of the blood gave similar results, except for eosinophil counts ranging from 8 to 22 per cent.

The sternal marrow showed increased production of erythrocytes, including eosinophilic myelocytes and metamyelocytes and plasma cells. The impression was one of probable degenerative erythroid changes of secondary nature, rather than malignant change.

The urine contained no melanin or prophyrin.

Biopsy of an inguinal lymph node was done on January 19. There was severe hyperplasia of the reticuloendothelial cells and the presence of brown granular pigment. A diagnosis of lipomelanic reticulosis associated with exfoliative dermatitis was made.

Biopsy of a subcutaneous nodule on an extremity was done on January 26. There was moderate acanthosis of the epidermis, with a moderate inflammatory reaction in the upper part of the cutis. A section of the subcutaneous tissue showed conditions suggestive of erythema induratum. A subcutaneous nodule on which biopsy was done February 21 showed conditions suggestive of lymphoblastoma, with one section showing definite panniculitis and a number of eosinophils. Possible leukemia cutis was suggested.

Staphylococcus aureus was present on culture from the pus of a subcutaneous nodule. Laboratory tests showed blood cholesterol, 178 mg., and cholesterol esters, 74 mg. per hundred cubic centimeters; icterus index, 6, and albumin, 2.8 Gm., and globulin, 2.7 Gm. per hundred cubic centimeters. The patient had several roentgen treatments of the skin, with some relief of the pruritus.

CASE 4.—C. H., a 24 year old Negro, was admitted to the dermatology ward of the Los Angeles County Hospital in September 1949, at which time he had an itching, dry, eczematous eruption involving the hands, forearms, genitalia, popliteal areas and dorsal surfaces of the feet. The inguinal, axillary and epitrochlear lymph nodes became enlarged; moist eruptions appeared on the feet and behind the knees, and a loss of axillary and pubic hair occurred.

A few weeks after admission a decided increase in the size of the lymph nodes occurred; the hair of the entire body began falling, and the dermatitis became universal. To the time of writing there had been little change. On a few occasions he had a low grade fever. He was seen in the dental clinic, and several extractions were made. Past history revealed a positive Wassermann reaction. Six months of antisyphilitic treatment in 1941, which consisted of weekly injections in the arm and

hip, were given. Two Wassermann reactions on this admission were negative.

Two albumin-globulin determinations revealed an abnormally low serum albumin level. Routine agglutination was normal. Microscopic examination of an inguinal lymph node removed in November was reported as showing lipomelanotic reticuloendotheliosis. In January, biopsy of the skin from the scapular area was done. The pathologic changes were reported as neurodermatitis by the pathology department and lymphoblastoma by the dermatology department. Studies of the blood revealed a white blood cell count of 13,800, with 40 per cent eosinophils, and mild anemia but no evidence of leukemia. Roentgenologic examination of the chest revealed no enlargement of the lymph nodes and showed the lung fields to be clear. Physical examination at the time of writing revealed a young Negro man with total alopecia and severe generalized enlargement of the lymph nodes, which were rubbery but nontender. The entire skin was less pigmented but redder than normal for this person. On the extremities the skin showed lichenification and was hard and tense to palpation. There was severe edema of both legs, and there were thick indurated areas in the popliteal regions. There was definite enlargement of both breasts.

Biopsy specimens of the lymph glands revealed the same changes reported in the previous cases (the accompanying figure).

SUMMARY

1. Four cases are described of the syndrome reported by Pautrier and Woringer as lipomelanic reticulosis. This is the third report in the American literature, the second report of a case in which autopsy was performed, and the only report in which depigmentation has been associated with the same histologic observations in the lymph nodes.

2. Lipomelanic reticulosis is a syndrome consisting of a long-standing chronic pruritic dermatosis associated with enlarged lymph nodes and, frequently, eosinophilia. The lymph nodes show the following characteristics: disorganization of normal structure, hyperplasia of the reticulum cells, the presence of considerable melanin and lipoid material and often many eosinophils. The chronic dermatosis is often difficult to diagnose definitely, either clinically or histologically, and may include exfoliative dermatitis of different causes, lichenification of various types, chronic eczema, pemphigus and psoriasis.

3. It is important that this harmless syndrome be differentiated from Hodgkin's disease and other lymphoblastomas, with which it is frequently confused. The generalized pigmentation which may be present must be distinguished from other causes of pigmentation.

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Standards, Usefulness, Nonsectarianism.—In order that a physician may best serve his patients, he is expected to exalt the standards of his profession and to extend its sphere of usefulness. To the same end, he should not base his practice on an exclusive dogma or a sectarian system, for "sects are implacable despots; to accept their thralldom is to take away all liberty from one's action and thought." A sectarian or cultist as applied to medicine is one who alleges to follow or in his practice follows a dogma, tenet or principle based on the authority of its promulgator to the exclusion of demonstration and scientific experience. All voluntarily associated activities with cultists are unethical. A consultation with a cultist is a futile gesture if the cultist is assumed to have the same high grade of knowledge, training and experience as is possessed by the doctor of medicine. Such consultation lowers the honor and dignity of the profession in the same degree in which it elevates the honor and dignity of those who are irregular in training and practice.—Section I, Chapter II of the PRINCIPLES OF MEDICAL ETHICS of the American Medical Association.

SURVEY OF SURGICAL PROCEDURES IN PSYCHONEUROTIC WOMEN

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In no phase of medical practice does one escape the difficult differential diagnostic problems presented by the chronic female psychoneurotic patient with her multiple complaints. One can only surmise the large number of such persons who are subjected to needless medical and surgical procedures through failure of the physician to recognize the underlying psychiatric illness. Therefore it seems important to reemphasize some of the problems presented by this group and to survey a representative number of psychoneurotic women in an attempt to determine the incidence of unwarranted surgical operations.

An approach to this problem is found in the available literature. McGeorge [1] in 1934 studied a group of patients hospitalized for nonorganic mental illness and found that 16 per cent of 132 female patients with hysteria (age range 15 to 35 years) had been subjected to operations which were ill advised, inasmuch as the patients' complaints had a psychogenic basis. In studying the incidence of pelvic surgery in these patients he found that the commonest operation was oophorectomy (occurring in 8 per cent); salpingectomy and hysterectomy had been performed in 7 and 5 per cent, respectively.

In 1936 Bennett and Semrad [2] studied 100 hospitalized psychoneurotic persons who were admitted with erroneous diagnoses of various organic diseases. One hundred and seventy-nine surgical operations had been performed on 73 patients, an average of 2.4 operations per patient. The authors [2] believed that at least half of these operations were probably unnecessary. Forty-three persons of this series had undergone pelvic operations along with other major and minor procedures.

Macy and Allen [3] in 1934, after reviewing 235 cases of chronic nervous exhaustion, showed that 200 patients had undergone a total of 289 separate major and minor operations. Fifty-one per cent of 156 female patients had had pelvic surgery. Strecker [4] pointed out that 23 per cent of psychoneurotic subjects have operative scars. Friess and Nelson [5] showed that the number of operations per patient in a group of 179 psychoneurotic persons was persistently higher than in controls (1.6 to 1.1).

In 1939 Johnson,[6] in a series of 100 selected female patients with pelvic complaints of psychogenic origin, showed that 25 per cent had had appendectomies and uterine suspensions. These procedures were not all performed to relieve pelvic discomfort; however, when such operations were performed after the onset of the emotional disorder the original conditions were aggravated by further lowering of the vitality, which increased the physical inadequacy. Previous operations on patients whose emotional disturbance centered around a social maladjustment (68 cases) included 13 per cent bilateral salpingectomy, 10 per cent unilateral oophorectomy, 9 per cent bilateral oophorectomy and 7 per cent

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1. McGeorge, J. A.: M. J. Australia 1: 777, 1934.
2. Bennett, A. E., and Semrad, E. V.: Nebraska M. J. 21: 90, 1936.
3. Macy, J. W., and Allen, E. V.: Ann. Int. Med. 7: 861, 1934.
4. Cited by Schwenkenberg, A. J.: Texas State J. Med. 35: 684, 1940.
5. Friess, C., and Nelson, M. J.: Am. J. M. Sc. 203: 539, 1942.
6. Johnson, W. O.: South. Surgeon 8: 373, 1939.

hysterectomy. Of those whose emotional conflict concerned a sexual maladjustment (32 cases), 9 per cent had undergone hysterectomy, 3 per cent oophorectomy and 6 per cent perineorrhaphy. In 72 per cent of the total series of 100 cases, the patients had been told more than once that a pelvic operation would relieve the symptoms.

Purtell and Robins [7] recently studied a series of 50 female patients with classic hysteria and determined that these patients averaged four major operations although a control group averaged 1 major operation. Appendectomy had been performed in 72 per cent of the patients with hysteria but only in 28 per cent of the controls; tubo-ovarian operations had been done in 46 per cent of the hysterical subjects and 10 per cent of the controls.

In 1942 Clarke and Ziegler [8] showed that abdominal surgery in a group of 15 male and 18 female psychoneurotic persons admitted to a mental sanatorium was twice as common as in a control group. The total major and minor procedures per 100 persons was 161 for the female psychoneurotic subjects and 104 per 100 persons for the controls corrected for age.

However, because the majority of the studies in the literature were done ten or more years ago and some were done on patients in mental institutions, it seemed of value to determine the incidence of various operations in a representative group of white female chronic psychoneurotic persons seen on an outpatient basis.

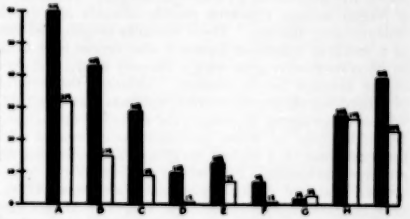
MATERIAL AND METHODS

Examination was made of 214 records of female chronic psychoneurotic patients from the Neuropsychiatric Outpatient Clinic of Washington University School of Medicine. Any case was considered chronic which had a duration of symptoms of psychoneurosis for two or more years. This period of time was selected in light of Denker's [9] large study of insurance disability claims for psychoneuroses in which he showed that patients given erroneous diagnoses of psychoneurosis were given correct diagnoses within one year. He also showed that 73 per cent had a termination of their disability within two years of onset. In the present study only those cases were used in which there was no evidence of physical disease or abnormality sufficient to account for the symptoms on an organic basis. Doubtful cases were eliminated. Every patient had had a complete medical work-up in the Medical Outpatient Clinic as well as psychiatric interviews. These women had a mean age of 37.9 (age range 16 to 69 years) and a duration of symptoms ranging from two years to a lifetime.

The controls consisted of 100 female patients with a mean age of 38.0 (range 18 to 69 years) admitted to the Medical Service of Barnes Hospital with the primary diagnosis of pneumonia (including bronchopneumonia, lobar pneumonia and atypical pneumonia). These cases were selected only as to age factor in order that a similar percentage would be taken from each five year age bracket as determined in the psychoneurotic group. These persons had all undergone medical work-ups, but for none had psychiatric consultation been sought. Those cases were eliminated in which there was an additional diagnosis of psychoneurosis. The histories may err on the side of incompleteness, especially regarding the incidence of minor surgery.

In analyzing the types of surgical procedures, only thyroidectomies and intra-abdominal surgical procedures were considered major operations. All others were listed as minor operations. If several procedures were performed at one time, they were counted collectively as 1 operation. Surgery involving the chest cavity was not counted, as some of the controls (pneumonia patients) had had operative procedures for chronic pulmonary disease. All minor surgery was considered with the exception of reduction of fractures, cauterization of the cervix, dental extractions, episiotomies and aspiration of nasal sinuses. Radium or roentgen therapy of the pelvic region which resulted in functional abolition of the ovaries was considered a major procedure, but that administered after the patient's menopause was listed as a minor procedure.

Inasmuch as it has been shown that the differences in incidence of surgical procedure relative to the size of the community or geographic location concern mainly minor procedures and vary only slightly in such operations as appendectomies and surgery of the female genital organs,[10] we believed that it was unnecessary to consider the place of residence of the patients at the time of their various operations.



Incidence of major operative procedures in 214 psychoneurotic women (black columns) and 100 controls (white columns): *A*, major procedures; *B*, major gynecologic procedures; *C*, ovarian surgery; *D*, uterine suspension; *E*, hysterectomies; *F*, gallbladder surgery; *G*, thyroidectomies; *H*, appendectomies (alone), and *I*, total appendectomies.

RESULTS

Of the total series of 214 female psychoneurotic patients in this study, 60 per cent (129 cases) had undergone major procedures. Forty-three per cent (91 cases) of the total series had undergone some major gynecologic procedure, and in 29 per cent (61 cases) of the total number ovarian surgery had been performed either alone or in conjunction with other procedures. Ovarian surgery included unilateral and bilateral oophorectomy and the extirpation of ovarian tumors and cysts. Thirteen per cent of the entire group had undergone hysterectomies, 10 per cent suspensions, 7 per cent gallbladder surgery and 2 per cent thyroidectomies; 18 per cent had had an operation in which only an appendectomy was done. Forty per cent had undergone appendectomy either alone or in addition to other procedures (see the accompanying figure).

A total of 185 major operative procedures consisted of 5 thyroidectomies, 175 intra-abdominal operations and 5 artificially induced menopauses. In an analysis of the 175 abdominal operations we find that 62 per cent included gynecologic procedures; 49 per cent included some type of ovarian surgery, and 13 per cent included uterine suspensions.

7. Purtell, J., and Robins, E.: Read before the Ninety-Eighth Annual Session of the American Medical Association, Section on Nervous and Mental Diseases, Atlantic City, N. J., June 1949.
8. Clarke, R. B., and Ziegler, L. H.: Dis. Nerv. System **3**: 198, 1942.
9. Denker, P. G.: Tr. A. Life Insur. M. Dir. America **24**: 179, 1937.
10. Collins, S. D.: Pub. Health Rep. **53**: 587, 1938.

The patients who had undergone major procedures also gave a history of 87 minor operations. Fourteen per cent (22 cases) of the total psychoneurotic series had experienced only minor surgery with a total of 43 minor operations. Twenty-six per cent of the entire group had not undergone surgery.

In studying the control group (100 cases) one finds that 32 per cent have had major surgery, with a total of 40 major operations and 26 minor operations. Fifteen per cent of the series have experienced major gynecologic surgery. Nine per cent of the total reported ovarian surgery, 1 per cent suspension operations and 7 per cent hysterectomies. An operation in which only an appendectomy was performed was tabulated in 17 per cent; 23 per cent had had an appendectomy either alone or in conjunction with other procedures. Thirty-eight per cent of the controls had not had surgical treatment and 29 per cent had undergone only minor surgery, with a total of 33 minor operations.

In summary one finds that the psychoneurotic group averages 86 major and 44 minor procedures per 100 persons while the controls average 40 major and 59 minor operations per 100 persons.

A smaller group of Negro women was studied separately because, as Levy and Meyer [11] have shown in a comparison of gynecologic disease in white and Negro races, the abdominal gynecologic surgical treatment of a Negro woman concerns mainly fibroids and pelvic inflammatory disease. These workers emphasized that as a result of extensive disease it was almost impossible to do conservative gynecologic surgery in the abdomen of the average Negro woman. Although the number of Negro female psychoneurotic subjects was small (23 with average age of 36 years), the statistical data closely resemble those of white psychoneurotic persons with the exception of a higher incidence of oophorectomies and hysterectomies. Fifty-seven per cent of the Negro women had had major abdominal operations; 43 per cent had undergone gynecologic surgery; 35 per cent oophorectomies; 17 per cent hysterectomies, and 17 per cent appendectomies (as a single procedure).

COMMENT

It would seem worth while to attempt an explanation of why psychoneurotic women undergo more gynecologic operations than nonpsychoneurotic women. Many writers [12] have pointed out the interrelationship between gynecologic and psychiatric disturbances and the common occurrence of gynecologic complaints in psychoneurotic women. It has also been stated that preexisting gynecologic symptoms become exaggerated with the onset of a psychiatric illness. For example, in Johnson's [8] series of 100 women with pelvic complaints of psychogenic origin, physical examination showed that 66 per cent had low grade chronic vaginitis and low grade chronic cervicitis. On analysis it was found that there was an average of more than three years' duration of vaginal discharge before the onset of present symptoms. The discharge was disregarded until there arose an emotional crisis, and then it assumed importance.

Surgery for dysmenorrhea and other vague pelvic complaints is strongly contraindicated in the neurotic patient unless a definite condition sufficient to explain the symptom is found. Such surgery is usually unsatisfactory and only tends to direct attention toward all pelvic functions and encourage hypochrondriasis and resultant invalidism. There is a certain degree of discomfort associated with menstrual periods at one time or another in all women. In the neurotic person with lowered pain threshold the unpleasantness is overemphasized. It is important to evaluate the personality make-up and possible emotional conflicts of the gynecologic patient.

We may interpret the equal incidence of thyroidectomies and the single procedure of appendectomies in the psychoneurotic persons and the controls as resulting from better preoperative diagnosis in these conditions in recent years. No longer is the diagnosis of chronic appendicitis being generally upheld. Improved laboratory methods have helped confirm the diagnosis of thyroid disease.

It would seem desirable to discuss the different factors that may aid in preventing unnecessary surgery. First, it is important especially in the neurotic patient not to overemphasize unimportant abnormalities. Many of these minor abnormalities were unknown to the patient and caused no symptoms until the patient was informed of the condition by the physician. Bainbridge [13] stressed that one should practice the art of permitting the neurotic patient to glean only those facts which make for healing. Many a psychoneurosis has been aggravated by an unwisely spoken opinion.

Second, it is important that emotional problems be recognized and their more obvious relation to the patients' complaints explained. The individual needs to understand the mechanism of the development of the symptoms as a first step toward their alleviation. It is essential that this understanding be fostered in all fields of clinical medicine and not just in psychiatry, so that the patient can receive help early in the illness. Menninger [14] pointed out how poorly the neurotic patient is understood by many physicians and stated that it might be construed as evidence of a failure in our medical education.

Third, except when symptoms are acute, surgery should be avoided in the psychoneurotic person until the emotional factors have been investigated. If organic disease does require surgical treatment the patient should receive both preoperative and postoperative psychotherapy. The candidate for surgery should be told just what symptoms the operation should relieve; the procedure should not be regarded by the patient as a panacea for all her multitude of complaints. If at operation organic disease is not found, it is the surgeon's responsibility to reveal the facts to the patient and see that adequate postoperative psychotherapy is instituted.

Some cases of psychoneurosis seem to originate after an operation. However, many times after a more detailed history one discovers that neurotic symptoms existed preoperatively. One should not overlook the duty of the surgeon to allay and minimize all possible fears associated with surgery. For example, a woman undergoing a gynecologic operation should be assured that previously established patterns of sexual behavior will not be lost.

11. Levy, W. E., and Meyer, H.: New Orleans M. & S. J. **89**:418, 1937.

12. Bryson, E.: Practitioner **155**:378, 1945. Donald, J. M.: South. Surgeon **6**:288, 1937. Forst, W.: J. Clin. Psychopath. **7**:507, 1946. Hervey, K.: Am. J. Obst. & Gynec. **25**:694, 1933. Houston, W. R.: Texas State J. Med. **32**:534, 1936. Kosmak, G. W.: New York State J. Med. **45**:2298, 1945. Leaver, H.: M. J. Australia **2**:769, 1934. Malfroid, B. W.: J. Michigan M. Soc. **32**:25, 1933. Pratt, J. P.: J. M. A. Georgia **35**:243, 1946. Seeley, M. S.: Texas State J. Med. **36**:856, 1940. Turlington, L. F.: South. M. J. **30**:723, 1937. Johnson,[8] McGeorge,[5]

13. Bainbridge, W. S.: Psychiatric Quart. **4**:414, 1930.

14. Menninger, W. C.: Ann. Int. Med. **27**:487, 1947.

Although some of the responsibility for unnecessary operations lies with members of the medical profession, we should recognize that many psychoneurotic persons become exceedingly demanding and aggressive in desiring surgical treatment. They frequently change doctors until they reach a willing surgeon, who understandably tends to evaluate the symptoms in the light of his specialty. Surgery to these patients may be an escape from an intolerable environment and may serve as a means of securing desired attention and affection. Other unconscious motives may be a wish for death or an expression of masochistic trends. For these reasons it is essential for the surgeon to defer operative intervention on the too insistent patient unless surgical indications are clearcut.

SUMMARY

The incidence of major surgical procedures in 214 case histories of chronic psychoneurotic women was compared with that in a group of 100 controls. Sixty per cent of the psychoneurotic group had undergone major procedures, and 43 per cent had undergone some major gynecologic operation. In the control group 32 per cent had had major surgery and 15 per cent of the series had experienced major gynecologic operation. The various factors which help explain the higher incidence of surgery in the psychoneurotic group were discussed, and possible means of decreasing the number of unnecessary surgical procedures in this group were suggested.

COLLES' FRACTURE

A Study of End Results

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Some years ago it was decided to study the end results of Colles' fracture. A chart was prepared and an attempt made to follow patients at least two years. This objective was attained in only 46 of the 361 cases of Colles' fracture studied. However, 35 other cases were followed long enough for the end result to be determined, making a total of 81. Over this same period my colleagues and I ascertained the late results in an additional 54 cases (not included in our 361) with enough deformity of the wrist to be recognized as cases of old Colles' fracture.

All 361 patients in this series were treated in a similar manner. The sole important variable was the amount of wrist flexion in which immobilization was carried out after manual reduction. Only plaster splint fixation was used. The dorsal splint was carried distal to the knuckles and the volar one to the proximal palmar crease. This permitted full finger motion, for which the patient was urged to strive. Elevation of the part was prescribed for as long as necessary to get rid of edema. Shoulder motion was advised for those who carried the arm in a sling. When the splints were removed, active motion and exercises of the wrist were begun. These have a twofold purpose, namely, to increase motion and to redevelop the forearm muscles. Physical therapy was not used unless it was requested, and then its relative inferiority to active exercise was impressed on the patient. It was used for the occasional demoralized person who needed the feeling that something was being done for him and that others were interested. Through it more frequent contact with the patient was maintained. The daily application of moist heat proved helpful, and patients reported increased ranges of motion during this treatment.

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RESULTS OF STUDY

The results here are those in an elderly group of patients. The average age of the patients for whom the end results were ascertained was 52. Only 18 were below 40 and only 3 under 20 years of age. End results were evaluated after one year in 25 cases and after two or more years in 46 cases. A few (10) who obtained full function in less than a year were included in the end results.

TABLE 1.—*End Results in 81 Cases*

	Function		
Anatomic Result	Excellent	Good	Poor
Excellent	47	5	1
Good	9	9	..
Poor	2	3	2
Bad	3	..	..
	61	17	3

Table 1 shows how the end results in 81 cases at Roosevelt Hospital were classified. In classifying anatomic results, we considered deformities of the wrist to be (1) shortening, (2) dorsal tilt, (3) radial deviation due to greater shortening or shift of the lateral portion of the radial articular surface than of the medial portion and (4) thickening of the wrist. For classification as an excellent anatomic result, not more than 1 plus deformity of any variety could be present. One plus deformity was that which was just recognizable clinically. An anatomic result to be placed in the "good" classification might have 2 plus deformity in one and rarely in two categories. These determinations were of necessity somewhat arbitrary.

Excellent function meant absence of pain and no defects in strength. Limitation in one or two movements of the wrist as great as 15 degrees was permitted in the "excellent" classification. A result classified as good had to leave the patient free of pain.

Table 2 shows a similar classification of results in 52 patients with 54 Colles' fractures who were seen at least a year and usually two to fifteen years after their injury. These patients were discovered during ward rounds or were seen because of other injuries and had old Colles' fractures. They had been treated at various hospitals. The infrequency of excellent anatomic end results, noted in this group, is at least partly due to the fact that, practically, only those patients showing obvious deformity were recognized as having had a Colles' fracture.

TABLE 2.—*End Results of 54 Colles' Fractures*

	Function		
Anatomic Result	Excellent	Good	Poor
Excellent	2	..	..
Good	21	4	2
Poor	12	8	2
Bad	2	..	1
	37	12	5

Tables 1 and 2 reveal that the functional results of Colles' fracture were good or excellent in the great

majority of the cases. This was true even though the anatomic result was poor or bad. It should be emphasized that these are end results and not intermediate results.

Table 3 compares the function noted in the end result groups with another group of 56 cases which were followed only three to six months. It is apparent that in the latter maximum function had not been attained.

Experience with these cases suggests that in general most patients with Colles' fracture get satisfactory, useful wrists and hands in time. The few who do not are elderly patients who already have osteoarthritis. Pain eventually disappears but finger motion may be permanently restricted, though even these patients regain most of the mobility present before injury. Good treatment is much more important in obtaining early function than in influencing the late functional result.

COMMENT

Anatomic Considerations.—There is some variation in the pattern of Colles' fracture as well as in the degree of severity. Badly comminuted and oblique fractures are difficult to reduce and still more difficult to hold. It is common for some deformity to recur while the wrist remains in plaster splints. The reason for this is the inadequacy of the plaster method in limiting motion of the fragments and in opposing muscular pulls. Plaster splints or casing, separated from the fragments they are to immobilize by varying amounts

TABLE 3.—*Comparison of Functional Results*

	Excellent	Good	Poor to Fair	Bad
56 patients followed 3 to 6 months...	19	21	14	2
81 Roosevelt Hospital patients.....	61	17	3	..
54 patients treated elsewhere.....	37	12	5	..

of movable soft tissue, cannot prevent shifting or shortening of oblique or comminuted fractures. Immobilization of Colles' fractures with plaster splints leaves much to be desired, but more complex methods have not improved anatomic or functional results sufficiently to warrant their use in other than occasional cases.

Since this study, we much more frequently use splints immobilizing the elbow. Permitting elbow motion is a frequent cause of motion at the fracture site, with consequent loss of position. In our experience, immobilization in marked palmar flexion results in a painful, prolonged convalescence. There are common misconceptions that flexing the wrist (1) assists in reducing the fracture and (2) prevents dorsal tilting. If one examines a dissected specimen, it will be seen that there is no tension on the dorsal radiocarpal ligament until maximum flexion is reached. This is confirmed by flexion of one's own wrist. Tension is produced only at the extremes of motion and not gradually as they are approached. Therefore, unless maximum flexion (a position which interferes with circulation and is painful) is used, some dorsal tilting can recur. Dorsal tilting is one of the most pronounced anatomic deformities of Colles' fracture but is the least disabling. Radial deviation of the wrist and shortening, with the resultant disturbance in the radioulnar joint, are greater functional handicaps.

Function.—Pain: When the fracture is properly reduced and splinted, pain quickly disappears. Pain should not recur when the splints are finally removed. If it does, it is likely that union is not solid. Tender callus confirms this. Nothing is gained by trying to exercise the wrist.

Late persistent pain, i. e., lasting three months to a year after injury, is frequently located on the ulnar side of the wrist and radiates to the little finger. This is most likely due to motion at the site of the fibrous union between the ulna styloid process and the distal end of the ulna or to disturbance of the triangular cartilage. Late pain or paresthesia is commonly felt in the fingers, usually the middle one. It may radiate from the wrist.

Pain or aching associated with changes in the weather not infrequently persists for as long as a year after severe Colles' fracture. Wringing clothes, turning tight door knobs, heavy lifting and pronation and supination movements under stress are frequently painful for a year after injury. Happily, few patients have pain after this time even when they retain considerable deformity, but, as might be expected, the younger the patient the more complete is the recovery and the earlier it occurs. No person in our groups whose Colles' fracture was more than two years old had any serious functional complaints no matter how bad the deformity.

Motion: If union is sufficiently solid and finger function is normal at the time the splints are removed, the recovery of wrist motion is swift and not a great problem. Under these conditions from 30 to 60 per cent of normal motion is present when the splints are discarded. Further recovery in the following month results in 60 to 100 per cent normal motion.

The problem is different when finger motion is poor and the splints are removed too early, i. e., before the callus is sufficiently strong. Then pain occurs on attempted motion of the wrist, and spasm, swelling and increasing stiffness of the fingers develop. Even though one waits until the callus is sufficiently strong to remove the splints, if finger motion has been poor and the patient unable to make a tight fist recovery of wrist motion is slow and requires a matter of months. The decreased circulation consequent to lack of function results in persistent edema and a shortening and thickening of ligaments.

Another factor in the recovery of joint function is muscle strength. When muscles operating over joints atrophy, the greatest and most important force in recovering joint function is greatly weakened. Atrophied muscles of the forearm cannot stretch tightened ligaments. Atrophy of the flexors of the forearm is always apparent if the patient has not used the hand during the period of splinting. Exercises to increase muscle strength are as important in the recovery of joint function as are exercises which move the joint. For these reasons, the speed of recovery of joint mobility tends to accelerate, increasing as joint movement and muscular strength increase.

Unfortunately, many principles of the treatment of Colles' fractures are insufficiently known or their applications are not enforced. Consequently one constantly sees patients who originally sought care for a disabled wrist and later seek care for a disabled hand. We feel that the following are common violations of the principles: (1) rocking the fracture back and forth to break up the impaction, an action which further comminutes the fracture and injures the soft tissues; (2) application of splints without anticipation of further reactive swelling and edema; (3) neglect of shoulder and finger exercises; (4) inadequate immobilization due to (*a*) poor splints or (*b*) too brief a period of

immobilization, i. e., under five to six weeks in patients with deformity; (5) immobilization in marked flexion, which position is painful and interferes with circulation, and (6) failure to make the patient understand the importance of early function of the fingers and the dominant role of active exercises in the recovery of function.

The late complications in cases of Colles' fracture concern joints, tendons or nerves. Increased arthritic changes in the hand are unfortunate sequelae in a few patients already suffering from this condition. Subluxation of the lower radioulnar joint, with pain and clicking, occurred in 1 case. Stiffness of the shoulder is another complication. It occurs when a patient carries his arm in a sling continuously and fails to exercise the shoulder during immobilization of the wrist.

Complications involving tendons included rupture of the long extensor of the thumb, a rare complication, and stenosing tenosynovitis in 2 cases, involving the thumb in one (Quervain's disease) and the middle finger in the other.

Nerve complications include paresthesias due to involvement of the median or ulnar nerves. Symptoms from these usually persist for months or may occur as sequelae.

A disturbing condition which is occasionally seen and which must be considered a complication when it persists is the painful swelling of the hand and fingers that results in prolonged disability and demoralization of the patient. The hand is usually reddened, cold and clammy, motion is painful and aching at night disturbs sleep. This complication usually occurs in those who have had pain from the start and in whom disuse atrophy has developed. Osteoporosis becomes severe, and the condition is akin to Sudeck's atrophy. Nerve blocks have not proved helpful.

SUMMARY

Three hundred and sixty-one patients with Colles' fracture have been treated and studied over a period varying from six weeks to several years. End results have been evaluated in 81 cases. The results in an additional 54 patients treated elsewhere have been evaluated one and a half years or longer after injury. All the patients studied were treated by manipulative reduction and plaster splints or plaster cast fixation. This method failed to prevent some anatomic deformity from recurring in many cases. During the immobilization emphasis was placed on preventing or reducing edema and on active finger exercise.

The functional end results were good or excellent in 127 of 135 cases of Colles' fracture. In only 8 were there poor functional results. Good or excellent function included absence of pain, good strength and an adequate range of motion. While there appeared to be a parallel relation between anatomic and functional end results, good function usually resulted even when the anatomic result was poor. This was especially true when the fracture occurred during the first four decades of life. A good early functional result was much more dependent on good treatment than was the final result.

The complications associated with Colles' fracture have been described. They involve joint function, muscles or tendons. A painful disabled hand was the most common complication of Colles' fracture in our group of cases. When this occurred, the recovery of good function required months.

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CARBON TETRACHLORIDE NEPHROSIS

A Frequently Undiagnosed Cause of Death

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In our experience acute carbon tetrachloride poisoning is common, and the true diagnosis is missed frequently. The condition in many such cases is diagnosed as uremia due to nephrosis or nephrosclerosis. Several factors probably account for this error: 1. Most cases are now sporadic and nonindustrial. Large industries using the chemical have become aware of its hazards and have applied effective safeguards. Yet undoubtedly huge quantities are purchased by individual persons for cleaning purposes. The potential hazards may be vaguely referred to in fine print on the bottle; however, the patient seldom thinks to associate anuria with exposure to the chemical because of the time interval between exposure and renal symptoms. 2. Intake of alcohol at the time of exposure appears to increase the incidence of acute poisoning and also serves to obscure the cause in the patient's mind. 3. Too many physicians think of carbon tetrachloride poisoning only in terms of acute collapse and liver damage. Smetana pointed out in 1939 that the liver damage may not be fatal and is often transient or overlooked, only to be followed later by renal shutdown. The maximum liver damage occurs within forty-eight hours. Clinical jaundice may be absent or may have cleared before renal symptoms develop. Cases of uremia are ever present on medical wards, and, at the present time, hepatocellular jaundice is also common. In our experience, unless the patient's occupation suggests carbon tetrachloride as a causative agent, this particular cause will be elicited only in a history taken by one specifically instructed to ask about it in every case of jaundice or renal impairment. At the United States Marine Hospital, Staten Island, N. Y., there have been 12 cases of carbon tetrachloride nephrosis in the past 5,000 admissions. Five of these cases proved fatal. The incidence was exactly twice that of subacute bacterial endocarditis for the same two year period. Certainly subacute bacterial endocarditis is not considered a medical rarity.

Only 1 of our cases may be considered an industrial poisoning. The rest have all occurred outside the usual occupation of the patient. In 2 cases only did the patient volunteer the correct cause of his illness. The following cases illustrate some of the types of poisoning, the pitfalls of diagnosis and the difficulties in treatment.

Two American seamen were transferred to the Marine Hospital from a nearby large municipal hospital. They had been admitted to that hospital three days before with nausea, vomiting and diarrhea of twenty-four hours' duration. The clinical abstract accompanying these patients from that hospital contained only the information that the patients had become ill after a spaghetti dinner. The diagnosis was "acute gastroenteritis." Here, by direct questioning, it was learned that both patients had been cleaning their clothes with carbon tetrachloride twelve hours before the onset of their symptoms. They both drank about

From the United States Marine Hospital, Staten Island.
Published with permission of the Surgeon General, United States Public Health Service, Washington, D. C.
Surgeon, United States Public Health Service (Dr. Farrier) and Medical Director of the United States Public Health Service and Chief of the Medical Service, United States Marine Hospital, Staten Island (Dr. Smith).

5 ounces (148 cc.) of whiskey during the cleaning process. The family of one of the patients was in the room the entire time but had nothing to drink and did not become ill. By further questioning it was learned that both men had been anuric for three days. This then was the classic picture—nausea, vomiting, diarrhea and anuria. Yet since the correct diagnosis was not considered, the condition was labeled "acute gastroenteritis" and the patients were given large amounts of intravenous sodium chloride and dextrose. This, incidentally, is probably the worst thing that can be done in a case of carbon tetrachloride nephrosis.

The next history shows, however, that in our hospital, where everyone on the staff has been repeatedly reminded of the condtion, the same oversight can occur. A Coast Guard chief boatswain's mate presented himself at the outpatient department. His outpatient card listed the chief complaints as nausea, vomiting, diarrhea, pain in the right upper abdominal quadrant and anuria. The condition was diagnosed as "acute gastroenteritis," and the patient was taken off duty and told to return if he was no better in two days. No further comment or mention was made of the anuria on the outpatient record. The patient returned two days later and was admitted to the medical service, where the history of acute drunkenness forty-eight hours before his first visit was obtained. The next day his wife had cleaned his uniform with carbon tetrachloride in the same room with the patient. The wife had had nothing to drink and did not become ill. The patient subsequently died of azotemia. Here again an incomplete history and failure to follow up even the incomplete information obtained delayed the correct diagnosis.

The possibility that our rather specialized group of patients might have been exposed because of the nature of their work led to the investigation of all the charts with this possibility in mind. Ten of the patients were exposed to carbon tetrachloride on shore and 2 were exposed on ships tied up in New York harbor. Seven of the men were exposed while cleaning clothes with carbon tetrachloride. One man was painting a room in his house, using carbon tetrachloride to thin the paint. Another was given carbon tetrachloride by a ship's purser who thought he was administering paregoric. One was drinking gin when a friend filled his "jigger glass" with carbon tetrachloride as a joke. Another was sleeping on the ship near a place where a carbon tetrachloride fire extinguisher had been used and inhaled the fumes. One was cleaning the upholstery of his car.

It has been stated that carbon tetrachloride causes damage to the liver but that when kidney damage is present it is due to the carbon tetrachloride being broken down by heat to phosgene. That this concept is incorrect is shown in our records. The only man who was poisoned with carbon tetrachloride that had been used to extinguish a fire was also the only one in whom kidney damage did not develop. On the other hand, in the cases in which the drug was ingested the patients died of anuria with uremia; in the other fatal case the patient had inhaled the drug.

The treatment is, of necessity, unsatisfactory, since as yet there is no successful substitute for all the functions of the kidneys and liver. Of our 12 patients, 5 died and the remaining 7 were discharged with no demonstrable kidney damage. The treatment is symptomatic. Our treatment has not been uniform. All treatment has been aimed at keeping the patient alive until kidney damage could be repaired. The kidneys show degeneration and desquamation of the tubular epithelium, but in all cases there is also a great deal of regeneration of cells, as shown by large numbers of mitotic figures. The pathologic picture is one of immediate damage to the liver and then, shortly thereafter, damage to the kidney. However, the cause of the damage is dissipated almost at once. Then it is simply a matter of keeping the patient alive until enough tubular parenchyma can be regenerated to recover normal function.

We have used two general methods of treatment. One was logical from the pathologic picture, the other was not. Three of our earlier patients received large amounts of intravenously administered fluids in what was generally accepted as good treatment for uremia. The remainder of the patients were treated by some form of irrigation. The most common form was insertion of a Miller-Abbott tube in the small intestine. Then isotonic sodium chloride solution or Ringer's solution was allowed to flow, while at the same time a Wangensteen suction was maintained to remove this fluid and, it was hoped, the excess nitrogenous wastes normally excreted by the kidney. This method was successful, at least, in preventing nonprotein nitrogen of the blood and urea nitrogen level from rising too rapidly. The other form of irrigation used was transperitoneal lavage. In this last method two sump drains were placed in the abdomen, and approximately 30 liters of fluid were perfused across the peritoneum every twenty-four hours.

Several considerations in the treatment of anuria due to carbon tetrachloride poisoning may apply to the treatment of other types of acute anuria. Theoretically, at least, in most cases the process is reversible. There is a lower nephron nephrosis, with degeneration and desquamation of the lining epithelium. Given enough time this epithelium may regenerate and resume its normal function. Thus, the aim of all therapy is to keep the patient alive until his kidneys can resume function. In general, this has been found to be about twelve days. If the patient survives this long he will have a 90 per cent chance of recovery. However, this is not an easy thing to do. The following method has been found to be the most effective.

As soon as the diagnosis of acute anuria has been established, the patient should have his fluid intake limited to 800 cc. of salt-free fluid a day. Salt is restricted for all patients that do not show hypochloremia. If this is present then the patient is given only enough salt to bring the chloride level of the blood to normal. This may seem to be an extremely severe fluid restriction. However, the 250 cc. of water formed by the body from the breakdown of body carbohydrates helps to replace the fluid lost and does not give the patient enough fluid to form edema. This last is important, since nearly all these patients die not of azotemia per se but either of pulmonary edema or of cardiac insufficiency. If, with this regimen, excretion does not start and if the blood levels (nitrogen, creatinine) rise to alarming heights, then some form of extrarenal removal must be instituted. Methods previously mentioned use the intestine or the peritoneum as semipermeable membranes. The other method is the use of the so-called artificial kidney.

We have mentioned that we lowered the nonprotein nitrogen level in several patients by using a Miller-Abbott tube with continuous suction and perfusion. Unfortunately, the nonprotein nitrogen level was the only thing that was lowered. Some recent work at Cornell showed that the intestine is not a semipermeable membrane but is rather a selective, secretory membrane. With this type of irrigation no creatinine is removed

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195

from the blood, and a great deal of water is absorbed into the general circulation. It is now generally believed that this form of treatment is as dangerous as the giving of large quantities of fluid by vein in an attempt to "force" the kidneys.

A more satisfactory form of dialysis utilizes the peritoneum. In the peritoneum there are approximately 22,000 sq. cm. of filtering surface, whereas in the glomeruli there are approximately 15,000 sq. cm. By using this membrane it is then theoretically possible to remove most abnormally high metabolic products from the blood and thus sustain the patient until enough tubular epithelium has been regenerated to take over its function. This has been done in 82 reported cases, with 21 survivals. The irrigating fluid which has been found to be the best suited does not alter the electrolyte balance of the blood in its essential constituents. It must be remembered that fluids and electrolytes may flow both ways across the peritoneum. The constituents of this fluid, developed at the Mayo Clinic, are shown in the accompanying table.

It should be noted that with either transperitoneal irrigation or the artificial kidney the use of more or less than a 0.6 per cent solution of sodium chloride will result in serious complications. If the usual 0.9 per cent sodium chloride solution is used, the sodium chloride

Composition of the Irrigating Fluid Developed at Mayo Clinic

Constituents	Gm. per Liter
Sodium chloride	6.0
Potassium chloride	0.2
Calcium chloride	0.1
Magnesium chloride	0.1
Sodium acid phosphate	0.05
Sodium bicarbonate	2.0
Sodium citrate	1.37
Dextrose	20.0

will cross over into the blood and edema will develop. If less than 0.6 per cent sodium chloride solution is used, the sodium chloride will be drawn out of the blood and dehydration with hypochloremia will result. Penicillin, 10 units per cubic centimeter, and 1 mg. heparin sodium per liter, are also added. If peritonitis develops and is found to be due to a streptomycin-sensitive organism, then this too should be added. (A detailed account of the technic of transperitoneal lavage appears in the Mayo Clinic number of the *Medical Clinics of North America* for 1948.[1])

Another method for extrarenal clearance has not yet been tried at the Staten Island Marine Hospital. This is the artificial kidney, which utilizes a long cellophane tube as the semipermeable membrane. The patient is heparinized and the blood is passed through the cellophane tube, which is immersed in the same type of solution as that used in transperitoneal irrigation. With this method about 45 Gm. of nonprotein nitrogen can be removed in twenty-four hours. Which of these two methods will finally be found to be the more advantageous only time will tell. Certainly both are serious undertakings, and may be life-saving when really indicated.

It was never the purpose of this paper to attempt a critical comparison of various forms of treatment, but rather to stress the fact that here were 12 patients who had had a disease acquired from the use of a so-called harmless household cleaning fluid. The 12 cases seen here in the past two years are not believed to constitute an unusual or chance incidence. The Marine Hospital at San Francisco has had 15 cases in the past two years. Several of the larger hospitals in New York have noted recent increases in this condition. Yet there is reason to believe many cases are still missed. In checking the records of one hospital comparable in size to the Marine Hospital at Staten Island, we found that they had not diagnosed carbon tetrachloride nephrosis in any case in the past 5,000 admissions.

1. Odel, H. M.; Ferris, D. C., and Power, M. H.: Clinical Considerations of the Problem of Extrarenal Excretion: Peritoneal Lavage, M. Clin. North America **32**:989 (July) 1948.

SUMMARY

1. We feel that many cases of carbon tetrachloride poisoning are being overlooked owing not to difficulty of diagnosis but rather to a low index of suspicion in the mind of the attending physician.

2. The majority of these patients may recover completely if some functions of the kidney can be taken over by other means and the patient's electrolyte balance maintained.

3. The danger of overloading these patients with fluids cannot be overemphasized.

4. Carbon tetrachloride poisoning is no longer much of an industrial problem but rather a hazard of the home. It can strike anyone who attempts to clean with carbon tetrachloride.

5. Ingestion of alcohol proximal to the period of exposure to the chemical greatly increases the hazard of the development of acute poisoning, lessens the outlook for recovery and reduces the chances of obtaining an accurate history.

6. Increased vigilance on the part of physicians will go a long way toward evaluating the scope of the problem and instituting proper educational and legal safeguards.

ADDENDUM

Since preparation of this article, 14 more patients with carbon tetrachloride poisoning have been treated at this hospital, with approximately 80 per cent recovery.

Twenty-Five Names Attached to a Clinical Picture.—The Guillain-Barré syndrome is a clinical entity which is not often diagnosed, although its occurrence is not uncommon. The chief reason for this is the failure of all attempts to isolate an etiologic agent and also the multiplicity of synonyms by which this form of neuritis is known. Infectious polyneuritis, Guillain-Barré syndrome, acute polyneuritis with facial diplegia, Landry's ascending paralysis are but a few. To date there have been 25 names attached to this clinical picture. . . . Osler, in 1892, described the first case under the name of "acute febrile polyneuritis" and noted its similarity to Landry's ascending paralysis. Several other case reports appeared in the succeeding 15 years, but it was not until 1916 that important additions to the clinical picture were made. . . . The type of infection initiating this course of events varies greatly; the syndrome has been known to follow in the course of acute upper respiratory infections, pneumonia, encephalitis, measles, mumps, scarlet fever, influenza, varicella, botulism, tuberculosis and syphilis. Recently, infectious hepatitis and infectious mononucleosis were also found to be precipitating illnesses. In fact, Hiller and Fox have suggested that a heterophile antibody determination be done in every case of the Guillain-Barré syndrome.—Reitman and Rothschild, the Non-Infectious Nature of the Guillain-Barré syndrome with a Possible Explanation for the Albuminocytologic Dissociation, *Annals of Internal Medicine*, May 1950.

Clinical Notes, Suggestions and New Instruments

INTERMITTENT CLAUDICATION TREATED BY REDUCING DEMAND OF CALF MUSCLES FOR BLOOD

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Intermittent claudication is the presenting symptom of the great majority of patients with arterial occlusion in the legs, whether it be due to arteriosclerosis, thromboangiitis obliterans or past embolism. Despite all the vasodilator drugs, blocking of sympathetic ganglions and sympathectomy, the mechanical methods, intra-arterial injections and even multiple transfusions, at least half the patients with intermittent claudication cannot walk better after treatment than before treatment.

In a study of a group of ischemic patients who continued to complain of inability to walk more than a block or two without stopping, it became evident that in these patients with major arterial occlusion the collateral vessels, even when maximally dilated, cannot supply sufficient blood to the calf muscles to permit continuous walking without pain. Since treatment directed toward increasing the blood supply so often fails to improve claudication, the idea suggested itself that perhaps one could reduce the demand of the calf muscles for blood so that demand would more closely approximate the limited supply and the symptom of claudication would be delayed or prevented.

METHOD

To determine whether this could be done, it was necessary to obtain more information concerning claudication; each patient was taken outdoors (few patients manifest claudication indoors) and told to walk as he did ordinarily. I walked alongside each patient. He was told to tell me as soon as discomfort, fatigue or pain appeared in the foot or leg. As soon as we started walking, a stopwatch was started and a counter used so that the rate of walking was determined for each patient, also the time of onset of fatigue, the distance which could be walked without stopping, how long the patient had to rest before he could walk again, and how soon claudication returned. The length of the step was also measured. Thirty patients with varying degrees of claudication were studied in this way. For purposes of comparison the walking of 10 normal persons was also studied.

RESULTS

The average rate of walking for patients and normal persons was between 110 and 120 steps per minute. A few older patients had a rate as low as 90 steps. One patient, aged 30, with thromboangiitis obliterans, demonstrated his walking rate as it had been before his arterial occlusion, and he walked 164 steps per minute. A curious observation at the start of the tests was that most patients with claudication were walking at 110 to 120 steps per minute, which is the average normal rate. Yet most patients had stated before the test that they were walking more slowly than formerly. What they were actually doing was walking at their regular preclaudication rate until pain appeared in a leg; then they would slow up or stop at the end of a half or whole block, rest and start walking again. Since it takes the patient longer to get to his destination, he thinks that he is walking more slowly. Only a few patients, usually those with extreme ischemia, slow up before pain starts.

I then had these patients walk with me at an average rate of 90 to 105 steps per minute, instead of their usual 110 to 120 steps, and in practically every patient claudication was greatly delayed or did not come on at all. While walking along at the slower rate during the test some patients would volunteer, "at this rate I can walk indefinitely." The week after the walking test, a patient who previously could not walk to the corner to get a newspaper without pain stated that he had been able to walk six blocks without stopping. He had simply been shown that by sauntering or strolling along at a rate of 90 to 100 steps per minute, instead of using his regular gait of 115 to 120 steps, he could get to his destination without pain and without stopping.

Another paradoxic fact that became apparent from this study of the walking habits of persons with claudication is that by reducing his walking rate by 20 to 30 steps per minute he can get to his destination more rapidly, and in some cases he is enabled to reach a destination to which he was unable to walk at his former regular rate. For example, a patient with moderate claudication walking at 120 steps per minute walks one block in almost two minutes. He then must stop for approximately one minute. To walk four blocks requires his walking for eight minutes and resting for three, a total of eleven minutes. The same patient walking 960 steps (four blocks) at 95 steps per minute requires only 10.1 minutes to complete the distance without pain and without stopping half a dozen times. One of the patients tested had to take a trolley to go two blocks.

In addition to learning the importance of the walking rate of patients with claudication, several other helpful facts emerged from these studies. Patients who shortened their steps were able to walk better. Also, when pain appeared so that the patient had to stop, some had learned that pain or fatigue disappeared more rapidly if the weight was shifted to the better leg. This drew attention to the fact that the greater the contraction or tension of the calf muscles, even in standing, the greater the need for blood. When tension was taken off the ischemic calf the need for blood was reduced. Even the carrying of a package reduces the distance that these patients can walk.

Two patients had learned an ingenious way to increase their walking ability by four or five times. By holding the knee of the affected leg in a stiff or semistiff position, they walked with a limp with most of the weight on the good or better leg. They were utilizing the limp as a technic in walking throughout their walking and not merely when pain began. They had exchanged a severe intermittent claudication for a mild constant limp. The limp presumably reduced the tension on the calf muscles of the ischemic leg. Psychologically, it is good for patients to know a method whereby they can walk farther or faster in an emergency. This limping technic allowed 1 patient to retain his job, which required more walking than his claudication would otherwise have permitted. Boyd, Ratcliffe, Jepson and James [1] accomplished the same purpose surgically by cutting the achilles tendon just above the heel with a fine sharp tenotome.

COMMENT

It is of interest that the first man to describe intermittent limping, Boullay,[2] a veterinarian, described it in 1831 in the horse in this manner. "The horse would present no symptoms at rest or when going slowly but, when going at a hastened gait or trot, at the end of five to fifteen minutes, would begin to drag one or the other hind leg and, if driven still further, the horse would lie down, unable to continue. After a pause or rest of five to thirty minutes, the horse became wholly restored and capable of going on. Autopsy of such a horse revealed obliteration of the distal portion of the aorta or closure of an iliac or femoral artery."

The blood in the leg muscles is required to supply nutrition to transport the body from one place to another. It takes more blood for the leg muscles to carry the body a certain distance at a rapid rate than at a slower rate. There appears to be an optimum rate at which each normal person can walk without fatigue and another, slower, optimum rate at which many patients with fixed and reduced blood supply to leg muscles can walk with little or no fatigue.

Vernon [3] studied the distance a normal man could walk with a fixed amount of oxygen, 60,000 cc., and the effect of increased speed on his performance. At a rate of three miles an hour, he covered 3.3 miles before the oxygen gave out. When the pace was increased to five miles an hour he covered only 2.4 miles with the same amount of oxygen. Putting this another

From the Peripheral Vascular Section of the Edward B. Rubinette Foundation, Medical Clinic, Hospital of the University of Pennsylvania.

1. Boyd, A. M.; Ratcliffe, A. H.; Jepson, R. P., and James, G. W. H.: Intermittent Claudication, J. Bone & Joint Surg. **31B**: 325 (Aug.) 1949.
2. Boullay: Arch. gén. de méd. **27**: 425, 1831; quoted by Buerger, L.: Circulatory Disturbances of the Extremities, Philadelphia, W. B. Saunders Company, 1924.
3. Vernon, cited by Gray, A. W.: The Futility of Hurry, Hygeia **26**: 400 (June) 1948.

way, at 3 miles an hour the man required 18,000 cc. of oxygen per mile; at 5 miles per hour he required 25,000 cc. per mile.

Patients also have a limited supply of oxygen and of whatever else blood supplies in their leg muscles when they walk. The average normal walking rate is too fast for the patient with reduced blood supply to the legs. The optimum rate of walking for a patient with reduced blood supply would be a rate which does not require more oxygen than the blood vessels can supply.

All patients with claudication have much more trouble in walking uphill, or upstairs, than on the level. This is not surprising, since it takes as much energy to lift the body 1 foot in going upstairs as it takes to walk 16 feet on the level. It has been found that the faster the rate of walking the higher the body is lifted at each step. This explains, in part, the great expenditure of energy in running.[4]

It is not easy to slow a patient down before claudication begins. After all, there is nothing wrong with the patient's ability to walk until claudication begins, after he has gone a block or two. The walking rate is fairly constant for each person. It is not enough to tell a patient that he must walk more slowly. In many cases the patient will have to be shown that slower walking means getting farther with less pain. Perhaps one may tell the patient to learn to walk at the rate of 90 to 95 steps per minute or tell him to saunter or stroll along.

SUMMARY

1. By studying patients with intermittent claudication it has been found that most of them walk at the rate of 110 to 120 steps per minute (i. e., normal rate), despite the fact that they state and believe that they walk more slowly than was previously their habit.

2. When such patients reduced their rate of walking to 90 steps per minute they could walk much farther without being stopped by claudication. In some, claudication did not come on at all.

3. Shortening the length of each step also delayed the onset of claudication.

4. When the patient with claudication in one leg walked with the knee of the affected leg held relatively straight (i. e., with a slight limp), thereby carrying his walking weight on the good leg for more than 50 per cent of the time and reducing the muscular tension in the affected leg, the onset of claudication was delayed.

5. It is logical to believe that these procedures reduce the demand for blood by the calf muscles.

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PSEUDOPERICARDITIS

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The purpose of this report is to call attention to an error in cardiac auscultation not infrequently made by experienced physicians, as well as by students and interns. This discussion is believed relevant because (1) textbooks of physical diagnosis and cardiology do not discuss this subject, and (2) the error results in the diagnosis of pericarditis, which has serious connotations.

Incorrect diagnosis is most likely to be made in thin-chested patients with retracted interspaces and prominent ribs who have pronounced apical pulsations and in whom auscultation is performed with the Bowles-type stethoscope. If the instrument is placed over the area of precordial pulsation bridging across the ribs, the forward movement of the apex through the interspace during systole may produce on the stethoscope diaphragm a superficial scratching sound easily mistaken for a pericardial friction rub (fig. 1). This sound can be made to disappear (1) by increasing the pressure of the stethoscope against the chest, thus preventing the to and fro movement of the skin against the diaphragm, (2) by placing the stethoscope between the ribs rather than bridging them or (3) by eliminating the diaphragm with the use of a bell-type stethoscope.

Fig. 1.—Schematic cross section of chest wall at cardiac apex, indicating cause for "pericardial rub."

Figure 2 is a phonocardiogram of a patient in whom several observers heard a "pericardial friction rub." The tracing in *A* was taken with the diaphragm of the stethoscope between the ribs. The normal heart sounds are seen, and no murmurs or adventitious sounds are recorded. In *B* the diaphragm was placed so that it spanned the ribs in the same position. The tracing records a murmur in early systole, which was interpreted clinically as a pericardial rub. With each beat the apical area could be seen to project forward through the interspace, touch and brush along the diaphragm and then recede to the diastolic position. This was responsible for the "rub" heard clinically and recorded electrically.

In summary, it is emphasized that when a "pericardial friction rub" is heard, one should be certain it is not an extraneous sound caused by the forward movement of the apex beat against

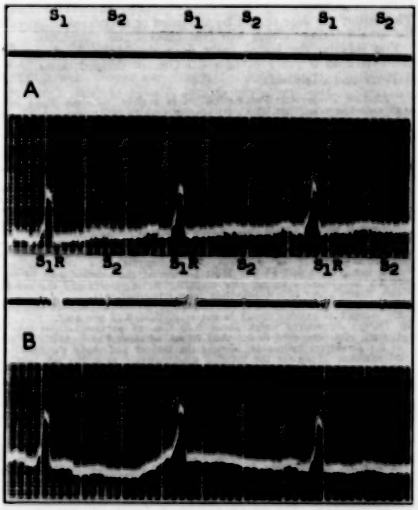


Fig. 2.—Phonocardiogram of pseudopericardial friction rub (S_1 denotes first sound, S_2, second sound and R, rub): *A*, diaphragm of stethoscope placed between the ribs—normal first and second sound; *B*, diaphragm of stethoscope bridging the ribs as indicated in figure 1—systolic rub immediately following first heart sound.

the diaphragm of the stethoscope. Lack of recognition of this artifact may result in the diagnosis of pericarditis. The body habitus of patients in whom this is most likely to occur has been described.

411 Medical Arts Building (2).

4. Morton, D. J.: Foot Biomechanics, in Glasser, O.: Medical Physics, Chicago, Year Book Publishers, Inc., 1944, p. 457. Elftman, H.: Skeletal and Muscular Systems: Structure and Function, ibid., p. 1420. Steindler, A.: Mechanics of Normal and Pathological Locomotion in Man, Springfield, Ill., Charles C Thomas, Publisher, 1935.

From the Department of Medicine, Baylor University College of Medicine, and Jefferson Davis Hospital.

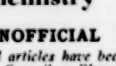
Council on Pharmacy and Chemistry

NEW AND NONOFFICIAL REMEDIES

The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application.

R. T. Stormont, M.D., *Secretary.*

PARAMETHADIONE.—Paradione (Abbott).—3,5-Dimethyl-5-ethyloxazolidine-2,4-dione.—$C_7H_{11}NO_3$.—M.W. 157.17.—The structural formula of paramethadione may be represented as follows:



Actions and Uses.—The actions of paramethadione are similar to those of trimethadione, but the drug may be quantitatively less active. Paramethadione is indicated in the treatment of petit mal epilepsy, and other conditions for which trimethadione is used.

Paramethadione is effective in a significant number of patients not benefited by trimethadione. The reverse is also true.

The side reactions resulting from paramethadione therapy are those produced by trimethadione, except that the incidence of photophobia and rash is diminished. The most serious side effect, as with trimethadione, is severe leukopenia, which occurs occasionally, and white blood cell counts should be made bi-weekly during the first two months of therapy and at monthly intervals thereafter.

Dosage.—Adults, 0.9 Gm. daily, initiated in divided doses. Thereafter, the dose should be increased or decreased to provide the smallest dose which will just control the symptoms.

For infants, the initial daily dose should be 0.3 Gm.; for children 2 to 6 years of age, 0.6 Gm. in divided doses.

Tests and Standards.—

Physical Properties: Paramethadione is a clear, colorless liquid with an ester-like odor. At 25 C. its specific gravity is between 1.1180 and 1.1240 and its refractive index is 1.449. It is freely soluble in alcohol, benzene, chloroform and ether; and slightly soluble in water. The *p*H of a saturated solution is about 6.4.

Identity Tests: Add 1 ml. of 1 *N* barium hydroxide to 5 ml. of 0.3 per cent paramethadione: within a few seconds a bulky white precipitate forms.

Add 10 ml. of 25 per cent sodium hydroxide to about 2 Gm. of paramethadione. Heat for 30 minutes on a boiling water bath. Over a free flame carefully evaporate the solution to 2 ml.: a heavy precipitate separates. Chill and add hydrochloric acid dropwise until the mixture is acid to Congo red. Extract the acid solution with five 10 ml. portions of ether. Combine the ether extracts and evaporate the ether on a steam bath. Recrystallize the residue from benzene. The needles of *N*-methylamide of a-hydroxy-a-methylbutyric acid thus obtained melt between 83 and 85 C. Heat 50 mg. of the needles with 30 mg. of dry soda-lime: a strong odor of methylamine results and the vapors turn litmus paper blue (*distinction from trimethadione*).

Purity Tests: Ash about 1 Gm. of paramethadione, accurately weighed: the amount of residue found is not more than 0.05 per cent.

Assay: Accurately weigh about 0.20 Gm. of paramethadione into a 125 ml. glass-stoppered flask. Add 30 ml. of alcohol and exactly 25 ml. of 0.1 *N* sodium hydroxide. Insert the stopper and shake the flask for 20 minutes. Transfer the solution quantitatively to a 150 ml. beaker; rinse the flask with a little water. Titrate with 0.1 *N* hydrochloric acid, using cresol purple as the indicator. Run a blank determination. Subtract the volume of acid required by the sample from that required by the blank. Each ml. of 0.1 *N* sodium hydroxide consumed is equivalent to 0.01571 Gm. of paramethadione. The amount of paramethadione present is not less than 98 nor more than 102 per cent.

Paramethadione Capsules:

Assay: Remove the contents of 20 capsules. Accurately weigh a quantity of liquid equivalent to 0.20 Gm. of paramethadione and proceed as directed in the assay in the monograph for Paramethadione. The amount of paramethadione present is not less than 93 nor more than 105 per cent of the labeled amount.

Paramethadione Solution:

Identity Tests: The solution responds to the identity tests given in the monograph for Paramethadione.

Assay: Pipet a sufficient volume of paramethadione solution into a volumetric flask and dilute it to volume with alcohol to give a final concentration of about 10 mg. of paramethadione per ml. Pipet 20 ml. of the solution into a 125 ml. flask and proceed as directed in the assay in the monograph for Paramethadione. The amount of paramethadione present is not less than 97.5 nor more than 102.5 per cent of the labeled amount.

Abbott Laboratories, North Chicago, Ill.

Capsules Paradione: 0.3 Gm.

Oral Solution Paradione: 0.3 Gm. per cc., 50 cc. dropper bottles: A 65 per cent alcoholic solution containing 0.3 Gm. of paramethadione in each cc.

ESTROGENIC SUBSTANCES (WATER INSOLUBLE) (See New and Nonofficial Remedies 1949, page 367).

The following dosage forms have been accepted:

The Bio-Intrasol Laboratories, Inc., Brooklyn

Solution Natrovin in Oil with Benzyl Alcohol 4%: 30 cc. vials: A solution containing 20,000 I. U. of estrogenic activity in each cc. of sesame oil. Preserved with 0.5 per cent chlorobutanol.

G. W. Carnrick Company, Newark, N. J.

Aqueous Suspension Thelestrin: 10 cc. and 25 cc. vials: A suspension containing 10,000 I. U. of estrogenic activity in each cc.; 1 cc. ampuls and 10 cc. vials: A suspension containing 20,000 I. U. of estrogenic activity in each cc.; 10 cc. vials: A suspension containing 50,000 I. U. of estrogenic activity in each cc. The vials are preserved with 0.5 per cent chlorobutanol.

Solution Thelestrin in Oil: 1 cc. ampuls, 10 cc. and 25 cc. vials: A solution containing 10,000 I. U. of estrogenic activity in each cc. of sesame oil. The vials are preserved with 0.5 per cent chlorobutanol.

U. S. Patent 300,022.

The William S. Merrell Company, Cincinnati

Aqueous Suspension Proliculin: 10 cc. vials: A suspension in isotonic solution of sodium chloride containing 10,000 I. U. of estrogenic activity in each cc. Preserved with thimerosal 1:20,000.

DIETHYLSTILBESTROL DIPROPIONATE (See New and Nonofficial Remedies 1949, page 378).

The following dosage form has been accepted:

The Blue Line Chemical Company, St. Louis

Diethylstilbestrol Dipropionate in Oil: 10 cc. vials: A solution containing 5 mg. of diethylstilbestrol dipropionate in each cc. of peanut oil. Preserved with 0.5 per cent chlorobutanol.

Council on Foods and Nutrition

ACCEPTED FOODS

The following products have been accepted as conforming to the rules of the Council. James R. Wilson, M.D., *Secretary.*

Clapp's Baby Food Division, American Home Foods, Inc., Rochester, N. Y.

Clapp's Strained Foods—Creamed Vegetables. Ingredients: Carrots, rice, powdered whole milk, tomato paste, tamarac flour, lima beans, dehydrated potatoes, 50% cream, celery and dehydrated onions.

Analysis (submitted by manufacturer).—Total solids 16.22%, ash 1.41%, fat (ether extract) 1.26%, protein (N × 6.25) 2.41%, crude fiber 1.86%, carbohydrates other than crude fiber (by difference) 9.28%.

Vitamins and Minerals	Mg. per Hundred Grams
Vitamin A	0.62
Thiamine	0.023
Riboflavin	0.128
Ascorbic acid	1.52
Niacin	0.44
Calcium	51.50
Phosphorus	19.60
Iron	0.13
Copper	0.29

Calories.—0.58 per gram; 16.47 per ounce.

Use.—For use in the feeding of infants, convalescents and others requiring a soft diet.

Clapp's Strained Foods—Vegetables with Bacon, Rice and Barley. Ingredients: Carrots, bacon, tomato paste, celery, dehydrated potatoes, precooked rice, barley, salt and dehydrated onions.

Analysis (submitted by manufacturer).—Total solids 12.89%, ash 0.95%, fat (ether extract) 2.23%, protein (N × 6.25) 1.35%, crude fiber 0.62%, carbohydrates other than crude fiber (by difference) 7.44%.

Vitamins and Minerals	Mg. per Hundred Grams
Vitamin A	3.36
Thiamine	0.077
Riboflavin	0.009
Ascorbic acid	1.77
Niacin	0.70
Calcium	21.3
Phosphorus	30.0
Iron	0.56
Copper	0.17

Calories.—0.55 per gram; 16.16 per ounce.

Use.—For use in the feeding of infants, convalescents and others requiring a soft diet.

V 1
195

Council on Physical Medicine and Rehabilitation

REPORT OF THE COUNCIL

The Council on Physical Medicine and Rehabilitation has authorized publication of the following reports.

HOWARD A. CARTER, *Secretary.*

MECHANAIRE ICELESS OXYGEN TENT, MODEL 30, ACCEPTED

Manufacturer: Oxygen Equipment Manufacturing Corp., Fitch Street, East Norwalk, Conn.

The Mechanaire Iceless Oxygen Tent, Model 30, consists essentially of two parts: a tent of transparent material, designed to cover the entire length of a hospital bed, and a cabinet, moving on four large casters, designed to control the rate and temperature of the inflowing oxygen.

The dimensions of the cabinet are as follows:

Height	140 cm. (55 in.)
Width	62 cm. (24½ in.)
Length	62 cm. (24½ in.)
Weight	80 Kg. (178 lb.)
Shipping weight	113 Kg. (250 lb.)

Accessories include the transparent canopy made of vinyl plastic, an aluminum-painted metal cup, a filter impregnated with vegetable oil, aluminum-painted deflector and a single-stage Bourden-type regulator with silencer. The motor requires 60 cycle alternating current at 110 volts. Since it is stated to be a ¼ horsepower motor, the power consumption should be 186 watts and the required amperage 1.7 amperes.

Mechanaire Iceless Oxygen Tent, Model 30

Evidence was obtained from a source acceptable to the Council that this mechanism gave a satisfactory control of the temperature and concentration of oxygen under the tent.

The Council expressed the opinion that no tent, regardless of make, should be run at less than 10 liters per minute. Actual determinations of oxygen concentration are essential if concentrations above 50 per cent are to be assured. The Council on Physical Medicine and Rehabilitation voted to include the Mechanaire Iceless Oxygen Tent, Model 30, in its list of accepted devices.

U. M. A. THERMOCOUPLE ACCEPTED

Manufacturer: U. M. A. Inc., 56 Cooper Square, New York 3.

The U. M. A. Thermocouple is a skin thermometer. The apparatus is housed in a wooden case and consists essentially of a galvanometer connected with one interior and one exterior junction of dissimilar metals.

To operate the instrument, a supply of either direct or alternating current at 120 volts is required. The case measures 25 by 29 by 20 cm. (10 by 11½ by 8 inches), and the entire equipment weighs 5.4 Kg. (12 pounds). The shipping weight is 9.1 Kg. (20 pounds).

The exterior junction is at the tip of a holder and is connected to the apparatus within the housing by a cable; it can therefore be touched to successive parts of the skin, for instance, and can be used to record the surface temperature. The interior junction is assumed to be at room temperature. Any disparity in temperature between the interior and exterior junctions results in distortion of the galvanometer string, and the resulting movement affects a mirror, which thus reflects a beam of light on a scale. The scale is graduated in both Centigrade and Fahrenheit degrees. The reference temperature is read on a small thermometer fastened to the outside of the wooden case, and at the beginning of the series of readings the instrument is calibrated by exposing the exterior junction to room temperature and adjusting the galvanometer until the reading on the illuminated galvanometer scale coincides with the reading of the small thermometer. Thereafter, the illuminated scale is assumed to give the temperature of the exterior junction directly.

The temperature of the external junction must not be interpreted immediately as the true skin temperature. There is generally some heat conduction along the wires that will influence the readings; various manipulations and external conditions, such as covering the skin, also affect the results. It must be assumed that persons operating instruments of this sort and undertaking to interpret the results are aware of the sources of error in skin thermometry and competent to make proper use of the results.

With these reservations, the Council on Physical Medicine and Rehabilitation voted to include the U. M. A. Thermocouple in its list of accepted devices.

ASTAR'TE TWO-WAY STRETCH ELASTIC STOCKING ACCEPTED

Manufacturer: Freeman Manufacturing Company, 900 West Chicago Road, Sturgis, Michigan.

The Astar'te Two-Way Stretch Elastic Stocking provides steady pressure over large areas of the leg, which is useful in the treatment of, for example, varicose veins. It is described as full-fashioned at heel, ankle, calf and knee and open at the toe. There are two types: (*a*) a garter hose, extending from the foot to just below the knee and held in place by a garter cuff, and (*b*) a knee hose, extending from the foot to above the knee and held in place by a rib-knit soft top to be attached to hose supporters.

The Council obtained evidence that this article was of sturdy construction, comparing favorably with similar ready-made articles at present on the market. The Council on Physical Medicine and Rehabilitation voted to include the Astar'te Two-Way Stretch Elastic Stocking in its list of accepted devices.

WALTON OXYGEN TENT HUMIDIFIER ACCEPTED

Manufacturer: Walton Laboratories, Inc., 1186 Grove Street, Irvington 11, N. J.

The Walton Oxygen Tent Humidifier is an electrically operated device for increasing the water-vapor content of air by mechanical means. The water is pumped from the reservoir through a straight tube onto the surface of a rapidly spinning disk. A fine film of water hugs the disk and is thrown by centrifugal force against the breaker comb, which atomizes water and makes a fine mist, hastening the process of vaporization at room temperature. A fan below the disk discharges the water particles into the atmosphere, where they change into water vapor. While this assembly is designed for use with oxygen tents, the humidifier proper can be used independently for humidifying the air of a small room. The oxygen tent model has a capacity of 7,560 cc. (2 gallons) and vaporizes about 700 cc. (1½ pints) of water per hour. It requires 110 to 120 volts of alternating current and draws 25 watts.

The unpacked article is 40 cm. in diameter (16 inches) and weighs 7.7 Kg. (17 pounds). Packed for shipment it makes a package measuring 50 by 50 by 40 cm. (19¾ by 19¾ by 15¾ inches) and weighing 9.1 Kg. (20 pounds). The weights given include two rubber hoses with clamps; one hose has an outside diameter of 64 mm. (2½ inches), the other 70 mm. (2¾ inches).

Evidence from sources acceptable to the Council showed that the device functioned as represented by the manufacturer. The Council on Physical Medicine and Rehabilitation voted to include the Walton Oxygen Tent Humidifier in its list of accepted devices.

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SATURDAY, JULY 15, 1950

COXSACKIE DISEASE

In 1948, Dalldorf and Sickles [1] of the Department of Health, Albany, N. Y., reported the isolation of a new virus from the feces of patients in Coxsackie, N. Y., whose disease had been diagnosed as "paralytic poliomyelitis." This virus readily infects newborn mice, producing in them diffuse myositis.

Detailed studies of the Dalldorf virus were afterward undertaken by Melnick [2] and his associates of the Department of Pediatrics, Yale University. The new virus was successfully isolated from the stools of 7 patients previously given a diagnosis of "nonparalytic poliomyelitis," "aseptic meningitis" or "fever of unknown origin." It was not recovered from 29 local patients with various other infectious diseases. Serums from patients from whom the new virus had been isolated neutralized the virus in the convalescent stage and, to a lesser degree, in the acute stage.

Swiss mice, usually 1 to 2 days old, were inoculated intracerebrally or intraperitoneally with clinical material. Weakness, ataxia or paralysis of one or more extremities usually developed in two to ten days, followed by death about 24 hours later. The outstanding pathologic finding was extensive myositis of the skeletal muscles, especially of the limb muscles. Lesions were occasionally found in the heart muscle and brain. Aerobic and anaerobic cultures of the infected tissues showed no bacterial growth.

The agent readily passes through a bacterial filter. Sedimentation tests suggest that it is one of the smallest viruses, since most of the virus remains in the supernatant fluid after centrifuging at 18,000 rpm for 30 minutes. The virus is readily neutralized by homologous antiserum prepared by immunization of mice or monkeys. It is not neutralized by antiserums from animals hyperimmunized against poliomyelitis or against any other heterologous viral infection. The agent has failed to produce disease in young adult monkeys, in 3 week old mice, cotton rats or hamsters.

Two chimpanzees were each given one oral administration of the virus but showed no clinical signs or symptoms. Virus, however, was recovered from their feces for 12 days after this administration and from their throats for eight days. Neutralizing antibodies absent before exposure were present in their serums on and after the fourteenth day.

In one physician engaged in work with the new virus there developed a febrile illness of eight days' duration diagnosed as "fever of unknown origin." The new virus was recovered from his feces and nasopharyngeal washings during his acute illness. Neutralizing antibodies were not demonstrable in his serum before and during the early phase of his disease but appeared in increasing titer during his convalescence, reaching a maximum titer on the forty-third day.

Feces collected from different parts of the United States were frozen and sent to the Yale laboratory. Negative results were obtained from the New York City and Los Angeles areas. Positive isolations were made from pooled samples from Akron, Ohio, and Winston-Salem, N. C. The virus was also isolated from sewage and flies collected in six Connecticut and North Carolina cities and from flies collected in Texas.

Cross neutralization tests led the Yale investigators to believe there were two serologically distinct strains or types of the new virus. A third serologic type was afterward demonstrated by Sickles and Dalldorf [3] in the New York area. Two other types were subsequently demonstrated by Sulkin,[4] making five known types of this "pseudopoliomyelitis virus."

A more extensive epidemiologic survey was undertaken by Howitt [5] of the United States Public Health Service, Atlanta, Ga., who isolated four different strains of this Coxsackie virus from frozen material from 97 persons in nine different states. Most of the isolations were from the feces, oral washings or blood, with an occasional isolation from the cord or brain. The patients manifested variable and ill defined clinical symptoms. In children the picture was usually that of nonparalytic poliomyelitis or a mild fever accompanied with headache and muscle pains. In adults Coxsackie infection was characterized by influenza-like symptoms.

Among the 97 cases 10 were fatal, in 5 of which the diagnosis was poliomyelitis. Both poliomyelitis and Coxsackie virus were recovered simultaneously from the spinal cord of one of these patients. Poliomyelitis virus alone was isolated from the feces of 2 patients who recovered. In most localities all isolations were of the same serologic type. Isolation of Coxsackie virus from the mouth washings of 6 out of 12 nurses who were asymptomatic but in contact with Coxsackie patients suggests the respiratory route of spread of this infection.

1. Dalldorf, G., and Sickles, G. M.: Science **108**:61 (July 16) 1948.
2. Melnick, J. L., Shaw, E. W., and Curnen, E. C.: Proc. Soc. Exper. Biol. & Med. **73**:344 (July) 1949.
3. Sickles, G. M., and Dalldorf, G.: Proc. Soc. Exper. Biol. & Med. **72**:30 (Oct.) 1949.
4. Sulkin, S. E.; Manire, G. P., and Farmer, J. W.: Proc. Soc. Exper. Biol. & Med. **73**:340 (March) 1950.
5. Howitt, B. F.: Proc. Soc. Exper. Biol. & Med. **73**:443 (March) 1950.

To facilitate rapid and simple clinical recognition of Coxsackie infections, the Texas bacteriologists [6] have used a complement fixation test. The legs of mice infected with this virus were ground with alundum to form a 33 per cent suspension in saline solution. Prolonged centrifugation was necessary to free the suspension of interfering nonspecific factors. Tests on patients and normal persons offer hope that a complement fixation test will prove to be of practical clinical value.

DRUG ADDICTION

Drug addiction has not received the serious consideration in recent years that it deserves. At the turn of the century much fiction was written in which narcotic addicts played a sinister role, a fact which indicated an awareness of the prevalence of this problem. World War I and the fabulous twenties also focused some attention on this outlet for human weakness. Narcotic traffic at that time was not as well controlled as was desirable. Law enforcement did not provide a fully restraining influence.

For some years, possibly because of the effectiveness of work done by the Bureau of Narcotics and state and local agencies, there has been a feeling of false security and an attitude adopted in some quarters that drug addiction does not constitute much of a health problem. Lack of knowledge has undoubtedly contributed to much of this indifference. Nevertheless, a serious problem does exist as is evident from the occasional reports issued by authorities who are close to it. Attention has been drawn repeatedly to the widespread use of marihuana, especially by the younger generation. Probably too few realize that this can be, and in some countries is, an extremely serious problem. More recently, increasing attention has been given to narcotics. It is not unusual, for example, to see newspaper titles such as "Dope Sales to Youths Boost Addicts 25 Pct.," "Bare Huge Dope Ring," "Court Sentences 3 Drug Addicts for Robberies," "Senate Votes to Clip Wings of Dope Rings" and "3-Way Attack on Dope Evil Urged." Such attention is needed. According to some reports, narcotic dealers are competing and underbidding each other to get juvenile business and a Family Court judge in one of the larger cities of this country reports a 25 per cent increase in the use of narcotics among adolescents. This judge observed in his jurisdiction that the average age of the offenders is 17, although there are many who are 14 and 15. Apparently the drugs are obtained in pool halls, dope flats, school yards and elsewhere. Another observation made by the head of a police narcotics detail is that most peddlers who appear in Family Court are addicts themselves and will not divulge their source of supply for fear of retaliation.

The distribution of narcotics is not entirely a local problem that occurs sporadically. Nationwide drug rings have been disclosed time after time, and usually they are linked with other unsocial illegal activities, such as crooked gambling and commercial vice. Recent information given before the Senate crime committee by the Commissioner of Narcotics of the Treasury Department, H. J. Anslinger, revealed several hundred members of a "combine" with branches in cities from Boston to Los Angeles and Seattle to Miami. An indication of the urgency for corrective measures was reflected in a recent action by the Senate, which passed a bill to empower the government to seize ships, boats, automobiles or airplanes used by narcotic rings. Under present laws a vehicle carrying marihuana or opium sometimes cannot be seized unless there has been an attempt to sell the drugs unlawfully. An independent action is reported as being undertaken by a special Senate crime-investigating committee which is inquiring into well organized syndicates in this field.

The medical profession has more than a casual interest in addiction to narcotics. More and more drugs are being developed, some of them synthetically, which are capable of causing addiction, and their properties are being brought forcefully to the attention of physicians. The Council on Pharmacy and Chemistry of the American Medical Association is particularly cognizant of this in its consideration of remedies for the relief of pain and other distressing symptoms. Marihuana, opium and opium derivatives and similarly acting substances precipitate medical, legal and social problems. A Physicians' Committee on Narcotics which has been formed in one of the larger cities to study drug addiction has been able to estimate its financial liability as well as the social and medical liabilities to a community. This committee proposes an attack on the source of supply, incarceration of facilities and intensive education. Dope peddlers are inveigling teen-agers into the use of narcotics free of charge until addiction occurs, after which a person will steal many dollars' worth of goods daily to buy drugs. The Committee lends emphasis to its warning by saying that present facilities are inadequate for stopping supplies, providing treatment, punishing peddlers and educating youth on the perils of dope. While organized educational programs can be started in schools, churches and in homes, and while the radio and press can help, much of the spade work must be done by those who are familiar with the physical and mental evils associated with the use of narcotics. In this physicians can provide inestimable help and should be intensely interested as practitioners and as citizens. Laws alone will not correct the situation.

Fortunately, drug addiction is receiving increasing attention throughout the world. As the source of supply is limited by the prohibition of export and by other protective measures the problem will decrease. Consideration of the problems of drug addiction in other

6. Manire, G. P.; Sulkin, S. E., and Farmer, J. W.: Proc. Soc. Exper. Biol. & Med. 73: 341 (March) 1950.

countries is helpful to those who take this problem seriously; various reports provide interesting information. For example, the chewing of coca leaves and the smoking of marihuana in South America[1] reveals the relation between lack of adequate education and drug abuse. Moral family and community responsibilities mean nothing to those physically dependent on the drug. "In intoxication from marihuana, the subconscious centers are in some way freed from the inhibitory influence of the conscious centers. Therefore, the essence of the ecstatic visions of the dreams, and, particularly, of the illusions, hallucinations and acts performed under the influence of the drug, nearly always corresponds to the real personality of the individual. . . . It has been known for a long time that marihuana has a provocative action towards the commission of offenses or crimes . . . the marihuana smoker actually realizes what is happening, but (is not) able to prevent the succession of events." One example is sufficient to show the lengths to which marihuana smokers, especially when congregated, can go. To quote from a lecture on the subject, "During these meetings, a scene is often presented typical of the old-time madhouse: men in a complete state of intoxication, delirious hilarity, with all the intermediary stages; flights and pursuits, cries and uproar, indecent songs and bawdy verses, always dedicated to the drug and in which African words are intermingled; some, already in a furious state or in an aggressive attitude, become dangerous; others, in a state of prostration, languish or, exhausted, sleep profoundly."

One of the reasons for some of the indifference now existing is perhaps the confusion between "drug addiction" and "drug habituation." Too often the terms are interchanged. The Expert Committee on Drugs Liable to Produce Addiction of the World Health Organization has suggested the following definition:

"Drug addiction is a state of periodic or chronic intoxication, detrimental to the individual and to society, produced by the repeated consumption of a drug (natural or synthetic). Its characteristics include: (1) an overpowering desire or need (compulsion) to continue taking the drug and to obtain it by any means, (2) a tendency to increase the dose and (3) a psychic (psychological) and sometimes a physical dependence on the effects of the drug." Habit-forming drugs, on the other hand, have been given the following definition:

"A habit-forming drug is one which is or may be taken repeatedly without the production of all of the characteristics outlined in the definition of addiction and which is not generally considered to be detrimental to the individual and to society."

This Committee has recommended intensification of medical research on drug addiction. While such research is needed and should provide much helpful information, the medical profession already has sufficient information to permit awareness of some of the pressing phases of drug addiction. By being alert itself the profession can stimulate others to lend their aid in the prevention and correction of this vicious health problem. This is a field in which the medical profession can assume forceful leadership and at the same time demonstrate the effectiveness with which local problems can be solved by local groups.

1. Wolff, P. O.: Problems of Drug Addiction in South America, Brit. J. Addiction 46:1 July 1949.

Current Comment

EMPLOYMENT OF THE PHYSICALLY HANDICAPPED

It has been estimated that there are probably seven to eight million physically handicapped persons in the working population of the United States. About six million are said to be employed, a quarter of a million are disabled each year and about a million are either seeking work or can be rehabilitated and trained for work. Some are said to be in jobs for which they are not best suited, and this provides a hardship for the handicapped and a burden for the employer, even the taxpayer. Obviously it can be a cause of considerable waste. One of the solutions is better understanding and information, and attempts are being made to give more attention to the special aptitudes of these persons and to increased opportunity for training for better jobs. Successful application of such principles heightens productiveness, increases earning power and affects tremendously the morale. Surveys conducted by the Department of Labor and the Veterans Administration, the Civil Service Commission, the United States Chamber of Commerce, the National Association of Manufacturers and the Accident Prevention Department of the Association of Casualty and Surety Companies are claimed to produce convincing evidence that, when properly placed, the physically handicapped worker can offer a performance as good as or better than the unimpaired worker. While the first week of October has for several years been designated as National Employ the Physically Handicapped Week, many private organizations and public-spirited persons do not wait for this week to give consideration to the employment of the physically handicapped; they consider each week what can be done. Much has already been accomplished, but much also remains to be done. Communities have excellent opportunities to solve this problem locally. The aid of physicians should be sought, as proper placement in many instances will depend on medical advice. To gain this end, members of the medical profession can offer to advance their services. Any community can begin a program to foster rehabilitation, and community service organizations can play important roles. Physicians, particularly the general practitioner who sees much of the patients at some time, can aid in the forceful application of principles of rehabilitation. It is a worth while investment of time and interest.

PROCEEDINGS OF THE SAN FRANCISCO SESSION

MINUTES OF THE ANNUAL SESSION OF THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION, HELD IN SAN FRANCISCO, JUNE 26-30, 1950

HOUSE OF DELEGATES

First Meeting—Monday Morning, June 26

The House of Delegates convened in the Concert Room of the Palace Hotel, San Francisco, and was called to order at 10 a. m. by the Speaker, Dr. F. F. Borzell.

Appointment of Dr. William Bates Vice Speaker, Pro Tem

The Speaker announced that Mrs. Reuling, wife of Dr. James R. Reuling, New York, Vice Speaker, had suffered a sudden illness on her way to the session, and Dr. Reuling would, therefore, not be able to be present at the session, and he asked for permission to appoint a Vice Speaker Pro Tem. On motion of Dr. Allen H. Bunce, Georgia, seconded by Dr. H. H. Shoulders, Tennessee, and carried, permision for the Speaker to appoint a Vice Speaker Pro Tem was granted, and the Speaker appointed Dr. William Bates, Pennsylvania, to that position.

Preliminary Report of the Reference Committee on Credentials

Dr. Edward P. Flood, Chairman, stated that over 170 delegates had already registered, and the Speaker announced that since there was a quorum present, the House was declared open for business.

In Memoriam

The Speaker requested the members of the House to rise while he read the following names of delegates and officers who had died since the last annual session, stating that Dr. Archibald E. Cardle, Minnesota, who was to have served as a delegate for the first time at this session, had died in a plane crash a day or two ago:

(The dates following the names indicate years of service in the House or as Officers of the Association).

Irvin Abell, Kentucky, 1922; 1924-1928; 1930-1935; President-Elect, 1937-1938; President, 1938-1939; Member, Council on Scientific Assembly, 1931-1934; Chairman, Council on Scientific Assembly, 1936-1937.
Willard Bartlett, St. Louis, Missouri, Vice-President, 1922-1923.
Milton Board, Kentucky, 1914-1916.
W. Earle Chapman, Michigan, 1927.
Orra F. Covert, West Virginia, 1909.
Harry Friedenwald, Maryland, 1907-1908.
T. R. K. Gruber, Michigan, 1937-1949.
Charles L. Harsha, Pennsylvania, 1922.
Andrew M. Harvey, Illinois, 1913-1914; 1916.
John F. Hassig, Kansas, 1927-1933; 1935-1946.
George D. Head, Minnesota, 1912; 1918-1919.
Roy B. Henline, New York, N. Y., Section on Urology, 1943; 1945-1948.
A. Parker Hitchens, U. S. Army, 1922.
Joseph W. Kimberlin, Missouri, 1923.
Thomas K. Lewis, New Jersey, 1941-1949.
Edward B. McDaniel, Portland, Oregon, Vice-President, 1924-1925.
Stephen R. Monteith, New York, 1945-1949.
William Gerry Morgan, District of Columbia, 1920-1926; President-Elect, 1929-1930; President, 1930-1931.
H. Leslie Moore, Texas, 1941-1943.
Lloyd Noland, Alabama, 1943-1949; Member, Judicial Council, 1935-1937; 1943-1948.
Robert L. Nourse, Idaho, 1907.
W. Glendower Owen, Louisiana, 1903.
Cadis Phipps, Massachusetts, 1940.
George R. Procter, Idaho, 1926-1929.
John W. Riley, Oklahoma, 1916-1917.
Ernest E. Shaw, Iowa, 1949.
J. Garland Sherrill, Kentucky, 1905-1906.
Jorge del Toro, Puerto Rico, 1919.
Hugh H. Trout, Virginia, 1934-1935; Section on Surgery, General and Abdominal, 1941.
G. M. Van Poole, Hawaii, 1933; 1936.
Frederic A. Washburn, Boston, Mass., Section on Hospitals, 1912.

Invocation

The Very Reverend Bernard N. Lovgren, Dean of Grace Cathedral, then delivered the invocation.

Adoption of Proceedings of Washington Clinical Session

The Secretary presented the proceedings of the Washington Clinical Session Dec. 6-9, 1949, which were adopted on motion of Dr. George W. Kosmak, New York, seconded by Dr. Walter E. Vest, West Virginia, and carried.

Tellers

The Speaker appointed the following to serve as tellers at this annual session:

Fred H. Muller, Chairman, Illinois.
H. Gordon MacLean, California.
Charles L. Shafer, Pennsylvania.
Raymond F. Peterson, Montana.
Roland W. Stahr, Nevada.

Roll Call

At the request of the Speaker, the Secretary called the roll, and those who entered after their names had been called reported to the Secretary.

Address of Speaker, Dr. F. F. Borzell

The Speaker, before reading his address, appointed as sergeants-at-arms: Joseph F. Londrigan, Chairman, New Jersey; Samuel J. McClendon, California, and Felix J. Underwood, Mississippi.

With the Vice Speaker, Dr. William Bates in the chair, the Speaker presented the following address, which was referred to the Reference Committee on Reports of Officers:

Gentlemen:—In opening this House of Delegates, the Speaker does so under the stress of conflicting inclinations. The obvious and most natural inclination is to expedite our business in order to enjoy fully the generous hospitality of our genial hosts, the California Medical Association and the San Francisco County Medical Association. The scientific program is also unusually attractive. These combined are a great temptation to cut business short. Over against this urge, however, is the cold fact that the responsibilities of this House call for a close, prayerful attention to the tasks at hand.

We have seen, it is true, our warfare against the forces that would destroy us progress favorably in the last year. We have won many minor skirmishes and some major battles, but the enemy is not yet annihilated. The evil spirit of Fabian socialism is still riding the stalking horse of Communism. It is becoming more and more evident that we are the spearhead of attack that, if successful, will spring the gates wide open to the hordes of statism.

On the other hand, while we are waging these battles, other more intimate and immediately more ominous clouds are appearing. There are policies being adopted by certain allied medical agencies that, if we do not combat, can only result in serious deterioration in the quality of service we, as physicians, will be able to render.

This body has the serious responsibility of continuing to keep the American Medical Association a positive champion of principles which will guarantee for the American doctor his independence and healthy conditions of operation in areas requiring the utilization of these allied agencies, for example, hospitals.

Narrow, self interested economic policies of these agencies can and will be detrimental to the assurance of good medical service. It is our duty, as the House of Delegates, to guard against attacks from within as well as from without.

It is not the prerogative of the Speaker to indicate any specific legislation. It is for you, the representatives of American medicine, to act with courage, deliberation and Godlike devotion to duty.

Invidious statements quoted in the papers as having come from the mouth of Oscar Ewing, call for no retorts from us. Childish name calling can only spring from a feeling of pique and consciousness of an untenable position.

We have been and will continue to be secure in our position.

There are a few details concerning the management and effective functioning of this House which should be considered. Several years ago this House adopted a complete revision of its Constitution and By-Laws. Since then changed conditions have called for numerous amendments. These amendments were not always strictly consistent with our Constitution and By-Laws. Speedy adoption may result in confusion. It has become quite evident that more deliberate consideration must be given to amendments to avoid conflict or confusion. This fact will doubtless be obvious to all during this session. You will be called on to reword some vital portions of the Constitution and By-Laws.

In order to provide for more thoughtful deliberations in the future the Speaker requests that for the next year, at least, the House authorize the appointment by the Speaker of an Interim Committee on Constitution and By-Laws, to consist of three members of the House of Delegates with the following ex officio members without vote:

The Speaker of the House.
The Vice Speaker.
The Secretary of the Association, and
One member of the Board of Trustees.

This committee should be authorized to consider such revisions or amendments as are called to its attention, then to recommend to the House carefully worded amendments that will be in conformity to good parliamentary usage and meet legal requirements. The Speaker would also suggest that this committee consider the advisability of a permanent standing committee on Constitution and By-Laws. I believe this will provide very necessary machinery to relieve the House of details that consume time and will result in more deliberate action.

It is, of course, understood that final action still rests with the House. (Here the Speaker remarked that at the last session of the House a change in the By-Laws was illegally adopted so that under "Tenure and Obligations of Membership" the words "one year" were changed to "six months" and should now read "one year" as previously.)

Another matter that has given the Speaker much concern is a growing tendency for the House to authorize appointment of committees of the House to consider and investigate matters which are the function of already established Councils and Bureaus. This has not only caused unnecessary expense but frequently a duplication of effort and a waste of time and energy on the part of those serving.

The Speaker fully recognizes the authority of the House to take whatever action necessary by way of investigation and approval or disapproval of any activities of the Association, be they administrative, executive or scientific. It would seem advisable, however, in the interest of efficiency and sound economy to weigh carefully every recommendation for these special committees.

I would respectfully ask, then, that reference committees weigh carefully such proposals before making recommendations to the House.

The Speaker must again emphasize the duty of reference committees to grant a hearing to any member of the Association or anyone who has anything to offer which will assist them in their deliberations. There are times when executives of the Association, component societies and executives of allied organizations can be very helpful in resolving moot problems.

Such persons should be invited to present their views to the reference committees.

The sponsors of resolutions should be present at reference committee hearings to give the committee the benefit of their views and the reasons for the given resolution. Each member of the House should consider it as much a duty to attend reference committee hearings on matters of interest to him as it is for him to be present at the sessions of the House.

May I take this opportunity to thank various members of the House for the interest they displayed during the interim between sessions as evidenced by letters and communications received.

REFERENCE COMMITTEES

The Speaker now formally presents the following reference committees. It has been necessary to make several changes in the published list.

During the presentation of the reference committees the Speaker suggested that the name of the Reference Committee on Medical Education be changed to Reference Committee on Medical Education and Hospitals.

SECTIONS AND SECTION WORK:
- Edward L. Compere, *Chairman*, Section on Orthopedic Surgery
- Willis H. Huron, Michigan
- Everett C. Fox, Section on Dermatology and Syphilology
- George M. Fister, Utah
- Roscoe H. Reeve, Wyoming

RULES AND ORDER OF BUSINESS:
- Jesse D. Hamer, *Chairman*, Arizona
- Charles E. Wagner, Delaware
- Frank W. Snow, Massachusetts
- William A. Hyland, Michigan
- George A. Earl, Minnesota

REPORTS OF BOARD OF TRUSTEES AND SECRETARY:
- E. Vincent Askey, *Chairman*, California
- George A. Unfug, Colorado
- James L. Whitehill, Pennsylvania
- John K. Glen, Texas
- Charles T. Stone, Section on Internal Medicine

MEDICAL EDUCATION:
- Leonard W. Larson, *Chairman*, Section on Pathology and Physiology
- Edgar V. Allen, Section on Experimental Medicine and Therapeutics
- William D. Stovall, Wisconsin
- Harold B. Gardner, Pennsylvania
- Andrew A. Eggston, New York

LEGISLATION AND PUBLIC RELATIONS:
- John W. Cline, *Chairman*, California
- Mather Pfeiffenberger, Illinois
- John J. Curley, Massachusetts
- Howard B. Goodrich, Missouri
- Ross D. Wright, Washington

HYGIENE AND PUBLIC HEALTH:
- Albert F. R. Andresen, *Chairman*, New York
- W. Palmer Dearing, United States Public Health Service
- Louis M. Orr, Florida
- James Q. Graves, Louisiana
- J. Morrison Hutcheson, Virginia

AMENDMENTS TO THE CONSTITUTION AND BY-LAWS:
- Walter E. Vest, *Chairman*, West Virginia
- Julian P. Price, South Carolina
- Allen T. Stewart, Texas
- Carl A. Lincke, Ohio
- Thomas A. McGoldrick, New York

REPORTS OF OFFICERS:
- Charles F. Strosnider, *Chairman*, North Carolina
- Ralph B. Eusden, California
- William H. Halley, Colorado
- Charles H. Richardson Sr., Georgia
- Everett P. Coleman, Illinois

CREDENTIALS:
- Edward P. Flood, *Chairman*, New York
- John F. Conway, New Mexico
- Karl S. J. Hohlen, Nebraska
- L. A. Alesen, California
- Gerald V. Caughlan, Iowa

INDUSTRIAL HEALTH:
Patrick J. Sullivan, *Chairman*, Massachusetts
Robert H. Hayes, Illinois
J. Stanley Kenney, New York
James Z. Appel, Pennsylvania
Deering G. Smith, New Hampshire

EXECUTIVE SESSION:
David Allman, *Chairman*, New Jersey
Hoyt B. Woolley, Idaho
F. S. Crockett, Indiana
John M. Porter, Kansas
Bruce Underwood, Kentucky

INSURANCE AND MEDICAL SERVICE:
E. P. McNamee, *Chairman*, Ohio
John F. Burton, Oklahoma
Raymond W. McKeown, Oregon
Warren L. Allee, Missouri
Alfred S. Hartwell, Hawaii

MISCELLANEOUS BUSINESS:
R. B. Robins, *Chairman*, Arkansas
George Braunlich, Iowa
Thomas A. Foster, Maine
George W. Kosmak, New York
Edward H. Cary, Texas

PUBLICITY:
Raymond L. Zech, *Chairman*, Washington
Thomas P. Murdock, Connecticut
William L. Estes Jr., Pennsylvania

The Speaker requested authorization to appoint a special Reference Committee on Emergency Medical Service. On motion of Dr. William Weston, Section on Pediatrics, seconded by Dr. H. H. Shoulders, Tennessee, and carried, the House authorized the appointment of such committee and the Speaker appointed the following:

Walter P. Anderton, Chairman, New York.
Eugene F. Hoffman, California.
Hugh H. Hussey Jr., District of Columbia.
H. G. Hamer, Indiana.
Stephen E. Gavin, Wisconsin.

Distinguished Service Award

Dr. L. H. Bauer, Chairman of the Board of Trustees, presented a report of the Board, as follows:

The Committee on Distinguished Service Award of the American Medical Association submitted five names to the Board of Trustees. The Board of Trustees has selected by ballot the following names for presentation to the House of Delegates in alphabetical order: Dr. Evarts A. Graham, St. Louis; Dr. Torald Sollmann, Cleveland, and Dr. Francis Carter Wood, New York.

Dr. Bauer read to the House information concerning Drs. Graham, Sollmann and Wood.

The tellers spread the ballot and the Secretary announced that Dr. Graham had received 122, Dr. Sollmann 20, and Dr. Wood 40. The Speaker declared that the House had selected Dr. Evarts A. Graham, St. Louis, as the recipient of the Distinguished Service Award for 1950.

Address of President Ernest E. Irons

The Speaker resumed the chair and called on Dr. Ernest E. Irons, President, to present the following address, which was referred to the Reference Committee on Reports of Officers:

PROGRESS REPORT ON AMERICAN MEDICINE

Physicians of this nation are deeply concerned with the prevention of sickness and injury of all our fellow citizens. The care of the sick, the prevention of disease and the alleviation of suffering are the center, the impelling motive, the inspiration, around which are built all the activities of the medical profession. The universally recognized accomplishments of medicine by the combined efforts of research and the application of new knowledge in careful and intelligent practice have been attained in a nation of free enterprise and, in the past, sound economy. The problems of medicine are closely integrated with the economic and social conditions of our people. They are mutually interdependent.

The application of science and discovery make possible continuous advances and new achievements in prevention and control of disease—better medicine. There are, however, inherent limitations in medicine; physicians cannot create bodily immortality. Death cannot be prevented; it can only be postponed. All that the physician can do about death is to change age and cause. Proponents of nationalized medicine seem to assume that there is some absolute standard of medical practice and talk glibly of "adequate" medical care as if they could set a standard and a limit to medical progress. Medicine is not static. With other men here, I have seen changes in medicine in the past 50 years, during which time what was regarded as good medical practice has become entirely inadequate today. By the very nature of medical progress, it can never attain perfection, because the goal moves ever in advance. One thing is certain, however, you cannot improve medical care simply by setting up a uniform assembly line system—which always has and always will make it worse. Already in England there is now being advertised private insurance to protect against the dangers and delays of government care. This indicates that even in Socialist England the people are finding that they must turn again to private enterprise, to protect themselves against the evils of socialism.

This development in England is so significant that I wish to read a few sentences from an advertisement of the British United Provident Association which appeared in the *London Punch*, May 10, 1950.

"Which would you choose in the event of illness? Private treatment or the General Ward!

"The National Health Service ensures that everyone receives medical and, if necessary, hospital treatment in the event of illness or operation.

"To many people, however, the necessary formalities, the waiting and, finally, treatment in a general ward, are disconcerting both in anticipation and in practice.

"In view of the fact that serious illness or the need for operation so often strikes without warning, it is no more than obvious wisdom to safeguard yourself and your family without delay. . . ."

We as physicians are resolved that the continuation of the marvelous progress in America shall not be thwarted or diverted by the introduction of a foreign ideology which, as in past decades, now elsewhere before our eyes, is destroying the quality of medical care and delaying the correction of obvious faults. We are well aware of the social and humanitarian necessity of provision for the health care of the indigent and the victims of ill fortune whose plight is due to both economic and medical factors. In former days this was accomplished by local communities and more recently by many excellent city and state aid programs, to which physicians already have given personal and professional support. This aid can be supervised best under local administration, and it then can reach the needy without being diluted by the impositions encouraged by socialistic promoters of the welfare state. We already have achieved in this country the best medical care in the world.

Last month we were favored by the pronouncement of a spokesman for the political backers of government medicine to the effect that now they would be pleased to give up the program for compulsory sickness insurance if medicine could offer any other solution for improving the medical care of the nation. This is an official confession of the bankruptcy of the program plaintively described as "so close to the heart" of their political leader. Recent political events have no doubt played some part in recasting Act II of this modern political Comedy of Errors. An intelligent expansion of sound and helpful programs will succeed without unnecessary national legislation. We shall do best by encouraging more individual responsibility, more self help and fewer treacherous governmental crutches, more honest statements of fact and less deliberate deception and playing with the truth, more willingness to work and less national political tinkering.

OUR MEDICAL AND ECONOMIC PROBLEM

The objectives of medicine and their relation to our entire American economy are now much better understood by the people of this country than at the outset of our educational campaign. Let us review the progress of this critical fight of medicine and of all patriotic groups to defend our America from the external and internal attacks of socialism and its twin, communism. Prior to two years ago the insidious growth of socialistic practices promoted in the name of social and economic welfare had placed businesses, medicine and even legitimate government on the defensive. In this gigantic malignancy a few ambitious but unscrupulous men did not hesitate to falsify statistics and sow seeds of discontent and distrust, audaciously using the familiar Marxian technic of the "misery of the masses" in a country the people of which are better fed, more prosperous and more productive than in any nation in history.

The subjugation of medicine to political purposes has always been an early objective in the promotion of the socialist welfare state. Nibbling at the personal responsibility, initiative and freedom of the individual by supposedly innocent and superficially attractive welfare measures went on for years without much opposition. Physicians and others interested in the welfare of the public failed to recognize this process of undermining the originally strong pioneer spirit of our citizens. As professional men and as citizens we failed to realize the gravity of this attack on the moral foundations of our country. After the preliminary softening of the national fiber by alleged temporary welfare promises and benefits, the direct attack on medicine was intensified and medicine found itself in the front line in defense not of medicine alone but of the American way of life.

THE OFFENSIVE

Now, after two years, the real threat of socialism is better understood by our citizens, and physicians together with other patriotic groups are on the offensive. Much of the previous national inertia which affected business and labor groups as well as medicine has been overcome. Thousands of nonmedical citizens and leaders, at first impressed by the false premises of arguments for compulsory sickness insurance now realize its inevitable destructive effects on quality of medical care, on the independence of the American citizen and on the economic stability of the nation. Still others, though now informed, unfortunately hesitate to "lose face" by admitting that they were deceived. Members of the medical and allied professions are better united in understanding and in purpose than ever before and are determined that there shall be no shackling of medicine and no compromise with the evils of socialism.

A vigorous campaign for voluntary insurance by medically sponsored groups and by commercial insurance companies has brought hospital insurance to more than 68 million, and protection against surgical costs to 40 million and for medical costs to 16 to 18 million persons. Sixteen thousand persons are being added daily to those participating in voluntary health insurance plans. Meantime the professional accomplishments of the medical profession in the prevention and cure of disease have proceeded apace with continuing reduction of illness and lowering of death rates. This progress will be still more rapid when we have disposed of this socialist threat to America.

The general public has been made increasingly aware of the dangers of socialized medicine and socialism, and resolutions in opposition to compulsory health insurance and in favor of voluntary health insurance have been adopted by more than 10,000 organizations. More than 6,000 are nonmedical and include farm bureaus, the American Legion, civic and women's clubs, religious groups, insurance groups and other professional organizations. This is indisputable evidence of the disgust of thinking persons across this land, independently of the political parties, for the insidious socialistic programs which will cost the average man more in taxes than he can ever receive in benefits.

CONFUSION

A few months ago it became evident that a bill for the nationalization of medicine could not pass this Congress, and so the program of its proponents was changed and an attempt was made to introduce further fragments of socialism by means of small federal contributions to this or that new welfare agency. A number of such bills were introduced carrying almost no financial commitment, obviously intended to set up a pattern—a foot in the door—so that later these little bureaucracies could grow. In other bills it has been proposed to give federal aid to projects which affect many phases of our economic, educational and medical life. Sometimes these proposals are urged on the basis of alleged need and at other times recommended as progressive social projects, often with the disclaimer of any present intent of local interference by government bureaucracy. No mention is made of the Supreme Court decision of 1942, which asserted the right of government "to regulate that which it subsidizes."

The American people would not now accept socialism as a substitute for our American democracy. However, there still is much confusion in the minds of the public and of many physicians as to the importance of the so-called fringe bills. For the past 15 years the American people have been conditioned to the gradual growth of welfare projects not only in medicine but in other fields of attempted economic planning, which historically in other nations have always ended in economic dictatorship. Economic planning and welfare projects have been promoted as devious alternative measures in preference to meeting economic and social difficulties on the basis of individual responsibility and incentive of each citizen.

Responsibility for the social welfare of our people, in which all physicians as well as public-spirited citizens are deeply interested, has been gradually shifted from the local community and the state to a federal bureaucracy on the fallacious ground that only federal government could take care of exaggerated claims of alleged tremendous gaps in social and medical care. Great advances in medical and social care already made at state and local levels are interfered with by severe taxation of a wasteful federal government which always exacts an excessive brokerage for the support of the ever growing bureaucracy parasitic on each project. Thus the public and the medical profession have been conditioned to progressive steps which tend to remove from group after group of our citizens the necessity of personal effort. This process of softening and regimentation, whether by direct subsidy or by federal loans to small businesses, has been tolerated by this nation more readily following its temporary regimentation by total war.

A welfare measure, superficially attractive and perhaps relatively innocent in itself, forms a precedent; it is then easy to add a further welfare measure on the supposition that it is similar and perhaps complementary to previous legislation. Thus it is not surprising that many physicians and other thoughtful groups find it difficult to determine where such legislation should stop. This difficulty is also encountered by members of Congress who in the past have taken positions of compromise, which no doubt were strategically expedient at the time but which have persisted to plague those who now see the entire economic and social picture more clearly. A number of laws with a socialistic trend were formerly favored by members of the Congress before they had opportunity to think things through.

The only sound and consistent position for American medicine and the American people is that of opposition to any measures related to the progress of the socialist welfare state. Worthy objectives have been habitually used to camouflage national proposals essentially dangerous to our medical, social and economic well-being. These objectives can be attained more safely and effectively by local and state efforts after appropriate thorough education of the public.

The offensive battle of the medical profession, in addition to outspoken opposition to the socialization of medicine and the socialization of America, must include opposition to fringe bills. We must clear our thinking from the muddle in which it has been placed by the insidious growth of welfare measures of the past 15 years, many of which were surreptitiously planned as steps toward socialism. Help for the needy and distressed can be supplied without destroying their individual freedom and subjecting them together with their fellow citizens to slavery of the police welfare state.

The successful program of local and state service to the sick and needy must not be nullified by dominating interference of selfish federal bureaucracies. Programs for preventive medicine must be advanced and not diverted by the destructive effects of socialized medicine on the quality of medical service to the public.

NATIONAL SOLVENCY

Medicine will flourish and progress only in a sound economy. Our efforts, therefore, must concern not only the interests of good medicine but also the maintenance of free enterprise and solvent finance in American life. We must labor to maintain the personal freedom and initiative of our citizens. Our funds then will be available to help the needy and improve the conditions of other citizens by local measures; citizens will not lose their initiative and sense of personal responsibility to the state. In this national emergency, whether physicians or business men or farmers or laboring men, we must not be guilty of cowardice or unwillingness to stand up and be counted. We shall have to oppose even some of our medical friends who have been deceived by the rosy red picture of the welfare state.

This is not a partisan political fight; it is a crusade in which every right thinking doctor who values freedom of opportunity, free enterprise and the maintenance of high standards of medical practice must join.

You, the members of this House of Delegates, represent all the states in the Union. It is by your efforts and influence that every doctor can be shown the part which he must play in the present crisis. We as physicians have traditionally shunned political activities. During war physicians have always joined in efforts to save our republic. Now is the time again to come to the rescue of our country, this time to help save it from socialism.

Physicians in every community must accept and take on the responsibilities of citizenship. First they must register and then vote. A survey taken recently disclosed that 13 per cent of physicians in the localities surveyed were not registered; in fact, 22 per cent did not vote. In this respect they are not different from other well meaning and patriotic groups; for example, 26 per cent of bank employees and executives were not registered and 32 per cent did not vote. The same survey revealed similar figures for pharmacists and ministers and for members of chambers of commerce.

We, as physicians, must pause in our practice long enough to inform ourselves of the issues which confront our country. We must realize that the country is being undermined by treacherous proposals initiated in the name of doing good. We must take an active part as citizens in our government. The problem is simply stated: Compulsory health insurance is socialized medicine despite recent frenzied political efforts to escape the issue. To socialize medicine is to socialize America. The effectiveness of our city, county and state aid programs for the needy and indigent, the further development of preventive medicine, the rapidly growing professional and commercial voluntary insurance against the financial hazards of illness, the multitude of fraternal and religious charitable and self-help agencies, must not be jeopardized and ruined by the imposition of deceptive and wasteful socialistic proposals advanced by those who hope to profit politically at the expense of the freedom of the American citizen.

Do we as a people wish to rush down the socialist road after Great Britain? The answer obviously is "no," but we must present forcefully our convictions. We as physicians and citizens shall not relax until, with other patriotic groups in business, on the farm, in the other professions and labor, we shall have rolled back the socialist flood that threatens to engulf our American freedom and our solvency.

As I conclude my year of service as President, may I thank you again for the honor you have done me, for your own efforts in our crusade and, most of all, for your support, which has made a trying and difficult year much easier. Among the compensations have been the cooperation of the general medical profession and the unity of physicians and of other patriotic groups in our fight to maintain freedom of medicine and freedom of America.

Presentation of Dr. Elmer L. Henderson, President-Elect

The Speaker presented to the House the President-Elect, Dr. Elmer L. Henderson.

Report of Board of Trustees

Dr. Louis H. Bauer, Chairman, Board of Trustees, presented the following report of the Board as printed in the Handbook, omitting the section on Reimbursement for Collection on page 45, which was referred to the Reference Committee on Reports of Board of Trustees and Secretary, with the exception of the report of the Committee on General Practice which was referred to the Reference Committee on Medical Education; the report of the Council on National Emergency Medical Service which was referred to the Reference Committe on Emergency Medical Service; the report of the Commission on Chronic Illness, which was referred to the Reference Committee on Insurance and Medical Service; the report of the Coordination Committee on Legislation which was referred to the Reference Committee on Legislation and Public Relations, and the portion of the report of the Board referring to membership dues, which was referred to the Reference Committee on Amendments to the Constitution and By-Laws.

To the Members of the House of Delegates of the American Medical Association:

The following report of the Board of Trustees is respectfully submitted:

FINANCIAL STATEMENT

The official reports of the Treasurer and the Association's auditors are appended as a part of this report.

In the year ending Dec. 31, 1949, the American Medical Association membership responded to the voluntary assessment placed on it by the House of Delegates by remitting through their constituent state and territorial medical associations the sum of $2,289,958.23. Disbursements from this fund in the conduct of the National Education Campaign amounted to $1,613,812.78. The balance, $676,145.45, unexpended on Dec. 31, 1949, was placed in reserve to meet further demands of the program.

Ordinary Income in 1949 amounted to $5,379,049.95, as compared with $5,166,107.08 in 1948, and was as follows:

Fellowship dues	$ 73,560.00	
Interest on investments	152,857.32	
Miscellaneous receipts	9,336.43	
Annuity premium refund	25,124.04	
		$ 260,877.79
Periodical subscriptions	$2,453,644.56	
Periodical advertising	2,431,837.63	
		4,885,482.19
Books, pamphlets and reprints		232,689.97
Total Ordinary Income		$5,379,049.95

Income from Fellowship dues increased to $73,560.00 in 1949 from $73,185.00 in 1948.

Interest on investments amounted to $152,857.32 in 1949, as compared with $138,912.11 in 1948.

The annuity premium refund of $25,124.04 represents an adjustment to a lower rate of the premium applicable to the first five year period of the contract covering employee annuities. Premiums payable in succeeding years will be correspondingly lower.

Subscription income from all periodical publications was $2,453,644.56 in 1949, as compared with $2,339,309.34 in 1948, and advertising income from the same source was $2,431,837.63 in 1949, as compared with $2,519,306.84 in 1948.

Income from books, pamphlets and reprints increased to $232,689.97 in 1949 from $77,693.05 in 1948. A demand for back volumes of the Quarterly Cumulative Index Medicus required reprinting many volumes, the sale of which aggregated $110,000.00 and is accountable for the large increase in income from this source.

Costs and expenses incident to the publication of periodicals amounted to $3,575,734.71 in 1949, as compared with $3,309,453.42 in 1948. Contributing importantly to this increase were wages and salaries; the full impact of substantial wage increases won by certain industry crafts in the middle of 1948 was felt in 1949, and a general upward adjustment in the wage structure continued throughout the year.

Additional comparisons of periodical publication expenses follow:

	1949	1948
Paper stock	$633,720.50	$580,791.28
Engravings and illustrations	93,126.71	97,423.94
Postage, all classes	219,043.90	209,218.62
Ink	28,837.06	29,631.62

Social Security taxes amounting to $37,654.94 were paid in 1949, as compared with $33,147.38 in 1948.

Costs and expenses totalled $5,272,232.39. This amount includes expenditures by councils, bureaus and committees amounting to $1,269,669.78. Similar expenditures in 1948 amounted to $1,169,165.52. Ordinary income in 1949 exceeded costs and expenses by $106,817.56; this amount was credited to the capital account of the Association, which now totals $4,240,197.81.

The addition to the headquarters building was completed about the middle of the year, at a total cost of $669,216.17.

Additions to investments in machinery and printing equipment amounted to $51,534.08 and in office and laboratory equipment, $71,972.29.

Marketable securities purchased at a cost of $4,716,546.79 represent investments of the

General Fund	$ 715,949.69
National Education Campaign	525,597.10
Association Reserve Fund	350,000.00
Retirement Reserve Fund	675,000.00
Building Reserve Fund	450,000.00
Depreciation Reserve Fund	1,300,000.00
Equipment Modernization Reserve Fund	700,000.00

In addition, United States Government Securities purchased at a cost of $1,491,209.38 are held in the American Medical Association Research Fund. There was also a cash balance of $2,134.37 in this fund.

Membership Dues

The Board of Trustees has made the following decisions as to who shall pay the American Medical Association membership dues:

1. The county society shall determine when the payment of dues is a hardship, but in no case will the American Medical Association dues be remitted unless the county and state dues also are remitted.

A person in actual training for not more than five years after his graduation from medical school will be exempted, provided he is also exempted from state and county dues.

2. The dues of a physician who joins his county society after July 1 will be $12.50; if he joins before July 1 his dues will be $25 for that year.

3. A physician who transfers from one state or county to another will not be expected to pay the dues a second time; that is, he will not be expected to pay them in the state or county to which he has removed if he paid them in the state or county from which he moved.

Recommendation

The Board of Trustees recommends that the House of Delegates take action to set the amount of membership dues at the annual session, which should give each constituent association time for the preparation of statements to include their own and the American Medical Association dues. Approval of this recommendation would necessitate amendment of the By-Laws.

The Board of Trustees also recommends that the By-Laws be amended to give the Board specific authority with respect to the remission of membership dues, as indicated above, and in certain other circumstances at its discretion.

Report of Committee on Displaced Physicians

This committee was appointed by the Board of Trustees in accordance with the following resolution which was adopted by the House of Delegates at the 1949 Annual Session:

Resolved, That a Special Committee on Displaced Physicians be appointed by the President of the American Medical Association to consist of six members, whose duty it shall be to study the problems of displaced physicians generally and as far as possible to cooperate with the International Refugee Organization and the various state authorities in furthering the resettlement of these individuals in a spirit of friendly cooperation with unfortunate colleagues.

In dealing with these problems the committee is cognizant of the following facts:

Of the more than 2,600 displaced physicians in the occupied zones of Europe a number have already emigrated to this country and many more, it is anticipated, will come, although there are probably almost 2,000 remaining in Europe at the present time. Among these physicians there are some who escaped into Western Germany without any personal documents as to graduation from medical school or evidence of their status as practitioners in their own countries. For a large proportion of these individuals it is impossible to obtain certificates of graduation from their medical schools, which are located in areas under Russian control. The International Refugee Organization has carefully checked all credentials and other evidences of professional status of every one of these physicians and has certified all those found worthy of such certification for medical work among the displaced populations of which they formed a part. Medical and public health activities for the past four years have been carried on among these people under the direction of the International Refugee Organization and the health standards and statistics will bear comparison with those of any civilized nation. Among the displaced physicians there is about the proportion of specialists, teachers and other leaders of the profession as would be expected in the population of any civilized country. These physicians, like the other displaced persons, are homeless and penniless and cannot return to the countries from which they came because a return to areas under communist control to which they are known to be opposed, would mean imprisonment or death.

With the above facts in mind, the committee makes the following recommendations: (1) that the American Medical Association suggest to the state medical examining boards and to the Federation of State Medical Boards of the United States that they give special study to the present unique situation with respect to displaced physicians with the idea of framing special regulations to meet it; (2) that the plan of accepting International Refugee Organization certification in lieu of other evidence of graduation and professional status when such evidence cannot be obtained be suggested to the state medical examining boards; (3) that efforts be made by the state medical boards to arrange for the appointment of displaced physicians in state hospitals, as has been done in Iowa, and in such other hospitals as may be possible, to allow such physicians to become acquainted with American medical methods and practices; (4) that state medical boards be urged to consider the framing of special regulations designed to make it possible for specially qualified displaced physicians to be licensed for limited practice in communities and hospitals where their services are needed; (5) that the American Medical Association recommend to the appropriate departments of the Federal Government that steps be taken to allow the utilization of the services of displaced physicians certified by the International Refugee Organization in federal services such as the Indian and Alaskan services under the Department of the Interior, where it is understood there is a great need for more physicians, and (6) that a copy of this report be sent to the secretary of each state medical examining board and to the secretary of the Federation of State Medical Boards of the United States.

Respectfully submitted,

J. J. Moore, Chairman.
Alex M. Burgess.
Creighton Barker.
Jacob Golub.
Ernest B. Howard.
George F. Lull.

The above report was presented to the House of Delegates at the Washington Session in December and action on it was deferred until the next session of the House.

REPORT OF COMMITTEE ON GENERAL PRACTICE

At its annual session in June 1949 the House of Delegates instructed the Board of Trustees of the American Medical Association to appoint a Committee on General Practice to continue the work of the former committee, which had been appointed in 1947. The Committee was appointed and has given careful consideration to the duties assigned to it as a continuation of the work of the former Committee. It has reviewed that Committee's report and has noted the progress made on the various recommendations of that Committee. The Committee submits the following report.

The Committee recognizes a change in the attitude toward and the emphasis on general practice in the past three years. The Committee feels that this is wholesome, that the prestige of the general practitioner has been improved, that medical students and interns are planning in increased numbers to engage in general practice, that more medical schools are aware of their responsibility for the training of adequate numbers of students for general practice and that the public is becoming increasingly aware of the need for the family and personal health counselor who will take care of the common ailments and who will call on the service of the specialist when this becomes necessary.

Many of these changes in attitude and prestige are due to social and economic factors over which we have no control, such as the change from a wartime to a peacetime economy. It is also due in part to the constructive attitude of the House of Delegates and the councils of the American Medical Association and to the increased interest on the part of general practitioners in the problems of organized medicine and medical education. The latter has been concretely indicated by the establishment of an organization of general practitioners, the American Academy of General Practice, which has already attained a membership of approximately 12,000. There is still lack of adequate participation on the part of the general practitioners in the problems of organized medicine, but the change that has taken place in the last three years is extremely encouraging, and the Committee calls attention to the fact that to its knowledge no major medical conference on a nationwide basis has been conducted this year without representation of general practitioners.

It is the opinion of the Committee that an insufficient number of general practitioners are being trained to fill the basic needs for adequate care for the American people and that there is still an overemphasis on the training of specialists. It is realized by leaders responsible for medical education and distribution of medical care that the best interests of the American people are served, economically and medically, when a balanced medical community is established with a foundation of 60 to 80 per cent of well trained general practitioners, with highly trained specialists skilled in the narrower branches of medicine readily available. This has awakened interest in teachers and members of the profession in general practice and has encouraged a higher percentage of students to continue in general practice. It is agreed by the majority of educators and leaders in medicine that more emphasis on general practice should be made in the undergraduate years, thus encouraging young men and women of high caliber to select this broadest field of medicine and surgery for their professional careers. Three methods of accomplishing this are suggested: (1) The inclusion of general practitioners as clinical instructors in the medical schools thus exposing the student to capable, conscientious, well trained general practitioners early in their medical careers; (2) a series of lectures or panel discussions on the art of medical practice during the junior and senior years, and (3) preceptorships sponsored and controlled by state medical societies and medical schools under which students would be assigned to selected and approved general practitioners for a specified period of time, during which they would live and work with the physician in the normal type of daily practice.

The Committee commends the Council on Medical Education and Hospitals for its work on the development of general practice residencies and recommends that the Council make every effort to have these facilities expanded as rapidly as may be consonant with a high standard of training. It further recommends that the Council consider the utilization of the small general hospitals throughout the country. These hospitals would provide a fertile field for training in actual practice of medicine and surgery while allowing interns and residents to participate actively in the work of general practitioners throughout the nation.

In regard to minimum training after graduation from medical school, the Committee feels that at the present time the most satisfactory requirements for graduate training for general practitioners would be a one year rotating internship, followed by one year of general practice residency, and continuation of postgraduate study at frequent intervals throughout the professional career. This is based on the educational philosophy that medicine is a life long educational experience. It appears that a third year or more would be particularly suitable for the general practitioners who desire to become more proficient in one or another clinical field, such as surgery, obstetrics, pediatrics or psychiatry. It would be feasible in teaching and university hospitals to develop a three year residency program to give such continued advanced training. The Committee recognizes a great variety of needs of educational experience both because of the great divergence of the types of communities which must be served and in the interests and abilities of the physicians practicing. It therefore feels that a rigid, fixed program for the education of general practitioners would be detrimental to the best interests of our nation.

The Committee feels that services of interns are being dissipated in some hospitals, because too much of their time is devoted to nonclinical activities and work that is not directly connected with the practice of medicine. The Committee understands that the Council on Medical Education and Hospitals is aware of this problem and is doing its part to correct it. The Committee also believes that this matter should be called to the attention of the members of the profession who are responsible for the educational experience of interns in hospitals. It is hoped that they will assume a fuller responsibility for the education of these young physicians and supervise the use of their time more carefully, so that greater economy of time and effort may be attained.

It is the opinion of the Committee that a higher quality of specialist would be obtained if the candidate for any field of specialization were taken from the ranks of the general practitioner with several years' experience in practice. The Committee recognizes that there are other acceptable points of view. However, it is the opinion of the Committee that until a man has had the opportunity to experience the practice of medicine he is unable adequately to evaluate and select the special field in which he is most capable and most interested. Furthermore, the Committee feels that the experience in general practice fits a man to be a more capable specialist, and therefore the Committee recommends that the various specialty boards give reasonable credit to the time spent in training and experience in the years of general practice toward eligibility for board examination and certification when such certification is sought.

The Committee commends the House of Delegates of the American Medical Association for its stand regarding the integration of general practitioners into hospital staff organization. The Committee again emphasizes that the integration of well trained, competent and qualified general practitioners into the staffs of all general hospitals will contribute to the distribution of a high quality of medical service to the people of the community. At the 1949 annual session the House of Delegates adopted a report of its Reference Committee on Medical Education which stated that it was of the opinion that "hospitals existed primarily for the better care of the sick and for the promotion of the health of the American people and that these ends can best be served by the existence of a large number of well trained, thoroughly qualified general practitioners able to admit their patients to the hospitals in order to give them the best medical care available." The Committee concurs in this report and recommends a continuance of the integration of general practitioners into hospital staffs. The Committee

believes that the members of the hospital staffs are the most qualified groups to decide who is qualified to practice medicine in the hospitals, whether as a staff member or as having courtesy privileges.

It is apparent to the Committee that there is no single representative organization acting as evaluating and approving agent in the field of hospital standardization and inspection. The Committee feels that the House of Delegates of the American Medical Association and the representatives of other agencies engaged in hospital standardization and approval should explore the possibility of developing a single body or organization which would represent all doctors utilizing hospital facilities. The Committee believes that this feeling is general throughout the medical profession in this country and recommends that the House of Delegates institute the preliminary steps to accomplish this purpose as soon as it is feasible.

The Committee commends the general practitioners for their increased interest in organized medicine, local, state and national, and encourages them to continue in all activities of organized medicine both scientific and organizational. It is the feeling of this Committee that a long range program, designed to correlate and assist in the solution of the various problems presented to general practitioners, may be met more effectively if this Committee on General Practice is continued.

Respectfully submitted,

STANLEY R. TRUMAN, Chairman.
WILLIAM L. PRESSLY.
JOSEPH B. COPELAND.
PAUL A. DAVIS.
GEORGE S. KLUMP.

COUNCIL ON NATIONAL EMERGENCY MEDICAL SERVICE

The Board of Trustees has received resolutions and expressions of appreciation from the Council on National Emergency Medical Service, which are herewith presented as a part of the report of the Board to the House of Delegates.

RESOLUTION ON EFFECTIVE CIVIL DEFENSE PROGRAM

WHEREAS, A civil defense program, to be effective, must be planned and organized well in advance of the time that it is needed; and

WHEREAS, The planning and organization of an adequate program of civil defense requires enabling legislation to provide for and allocate the necessary authority and to allow for intra and interstate mutual assistance agreements; now therefore be it

Resolved, That the American Medical Association does hereby go on record as urging the immediate passage of adequate Federal and state enabling legislation and the immediate establishment, in those states that have not done so, of a civil defense organization headed by a civil defense director to whom the necessary authority and responsibility are delegated.

RESOLUTION ON APPOINTMENT OF MEDICAL ADVISORY COMMITTEE TO NATIONAL SECURITY COUNCIL

WHEREAS, The decisions of the National Security Council will be critically affected by the magnitude, complexity and seriousness of the medical and health problems that will confront the nation in the event of a future war; now therefore be it

Resolved, That the American Medical Association urges the appointment of a medical advisory committee to the National Security Council.

EXPRESSIONS OF APPRECIATION

1. The American Medical Association, through its Council on National Emergency Medical Service, wishes to extend to the President of the United States its appreciation for his wisdom and foresight as shown in the appointment as Chairman of the National Security Resources Board of an Executive of the highest type who has amply demonstrated himself to be well qualified for this most important post. Furthermore, the American Medical Association, through its Council on National Emergency Medical Service, wishes to assure the Chairman of the National Security Resources Board of its appreciation for the fine spirit of leadership and cooperation that has been shown by the Director and members of the Health Resources Division of the National Security Resources Board and of the sincere desire of the American Medical Association to continue to cooperate with that body in its civil defense planning and to render any and all assistance to it and to the National Security Resources Board as a whole that may lie within its powers.

2. The American Medical Association, through its Council on National Emergency Medical Service, wishes to commend the National Security Resources Board, the United States Atomic Energy Commission and the General Services Administration for the wisdom and foresight evidenced in the establishment of the nationwide courses of indoctrination in the medical and radiological aspects of atomic warfare and wishes to assure these agencies of its sincere desire to cooperate with and to assist them in their efforts to insure the success of this program, which may be expected to familiarize the medical and allied professions with these most vital of subjects.

3. The American Medical Association commends the Defense Secretary for the progress that has been made in the development of programs providing for the more effective and economic utilization of medical personnel and facilities in the Armed Forces.

REPORT ON RESOLUTION REFERRED AT WASHINGTON SESSION

The Resolution on Battle Assignment of Medical Reserve Officers, introduced by Dr. James P. Kerby, Utah, at the Washington Session, was referred to the Council on National Emergency Medical Service. The Council has considered the resolution and, having been assured that the problem is recognized by the Medical Department of the Armed Forces and is being considered in current planning, recommends that no further action be taken at this time.

STUDENT AMERICAN MEDICAL ASSOCIATION

The House of Delegates at the Washington Session in December directed the Board of Trustees to make necessary studies and develop appropriate plans, for presentation at the next session of the House, toward the formation of a junior American Medical Association. This action of the House was in accordance with resolutions presented originally at the 1949 annual session and again in more specific form at the clinical session.

In compliance with this mandate the Board presents, for whatever action the House of Delegates may desire to take, the following Proposal for the Establishment of a Student American Medical Association (or by whatever name called):

1. The organization should be limited to medical students.

2. County medical societies should be encouraged to offer a special membership to interns.

3. The basis of the organization should be local student societies formed at each medical school.
   (a) Students should elect their own officers on the local level and run their own organization.
   (b) Each local chapter should have an advisory committee as follows:
      i. A faculty representative appointed by the local county medical society from a list of five or more names submitted by the local student society. All nominees must be members of the local county medical society.
      ii. A county medical society representative appointed by the local medical society, who shall not be a member of the faculty.
      iii. A state medical association representative appointed by the state medical association, who shall not be a member of the faculty.
      iv. The dean of the school.
      Careful selection of the advisors in categories i, ii and iii is vital. The advisors must be respected by both the medical profession and students and should be familiar with the achievements and programs of organized medicine.

4. An "Executive Council" should be formed to administer the student organization. It should be constituted as follows:
   (a) Ten students elected at the national convention of the student organization.
   (b) Three representatives of the American Medical Association selected by the Board of Trustees.
   (c) The Executive Secretary (to serve without vote).

5. An Executive Secretary, with offices at American Medical Association headquarters, should be appointed by the Board of Trustees. His function would be to coordinate the activities of the student organization on a national level and carry out the policies of the Executive Council.

6. The student organization should hold an annual convention composed of two duly elected student delegates from each medical school chapter for the purpose of transacting business.

7. The national convention of the student organization shall elect two representatives to the American Medical Association House of Delegates, who shall have the privilege of the floor but no vote in that body.

8. After consideration of this plan by the House of Delegates in June, student representatives from those medical schools that have demonstrated interest in the formation of a student organization shall be invited to meet with representatives of the American Medical Association, designated by the Board of Trustees, to draw up a constitution and by-laws and to take whatever other action is indicated at the time.

9. When this "ad hoc" group has completed its functions, a constitutional convention of students should be called to establish formally the student organization.

10. The subcommittee considered the establishment of a publication for the Student American Medical Association but no final conclusion was reached. It was suggested that if a special publication is approved the editorial supervision should be under the direction of the Executive Secretary and the Editor of The Journal of the American Medical Association.

11. It will be the responsibility of the Board of Trustees to consider what expenses, if any, of the Student American Medical Association shall be borne by the American Medical Association.

Survey of Physicians' Incomes

The Board of Trustees has authorized the cooperation of the Bureau of Medical Economic Research with the Department of Commerce of the federal government in making a survey of physicians' incomes. Similar surveys of incomes of dentists and lawyers have been made jointly by the Department of Commerce with the American Dental Association and the American Bar Association.

The survey does not have any relation to the operations of the United States Bureau of Internal Revenue.

A questionnaire has been sent under government frank to 100,000 physicians. The results of this questionnaire will be made available to the Bureau of Medical Economic Research at Association headquarters.

Surveys of Medical Education and Medical Practice in Great Britain

Since the meeting of the House of Delegates in Washington in December, two committees were sent to Europe to investigate the impact of new legislation on medical education and on the practice of medicine in the United Kingdom. The first committee, which was charged with investigating the effect of this type of legislation on medical education, consisted of Dr. Loren R. Chandler, dean of Stanford University School of Medicine; Dr. Stanley E. Dorst, dean of the University of Cincinnati College of Medicine, and Dr. Harold S. Diehl, dean of Medical Sciences at the University of Minnesota. The second committee, appointed to study medical care, was composed of Dr. Walter B. Martin, Norfolk, Va., a member of the Board of Trustees; Dr. Heyworth N. Sanford, Chicago, a pediatrician; Dr. Ulrich R. Bryner, Salt Lake City, a general practitioner; Dr. Grover C. Penberthy, Detroit, a surgeon, and Dr. Carl M. Peterson, Chicago, Secretary of the Council on Industrial Health.

The reports submitted by these two committees are exhaustive and will be published in The Journal either in full or in condensed form. Enough mimeographed copies will be available at San Francisco, so that each member of the House of Delegates may obtain one.

These are the first official reports to the American Medical Association on conditions in Great Britain. Many articles have been written by observers, and many persons going to England have brought back information, but these committees remained long enough to make very careful studies. Their reports are highly illuminating.

Hearings on Taft and Hill Bills

The House of Delegates at its June 1949 meeting in Atlantic City adopted Resolutions on the Hill Bill and Taft Bill and directed the Board of Trustees to hold hearings on the resolutions. At the first meeting of the Board following the June session of the House, this matter was discussed, and the Board voted to report to the House of Delegates that any interested person may appear to present his views at any regular meeting of the Board of Trustees. This holds true not only for the Taft and Hill Bills but also for any matter that is important to the Association. The Board of Trustees is always ready to hear individuals or groups. The Board further felt that any members desirous of testifying regarding the Taft and Hill Bills should contact the Coordination Committee on Legislation, which was recently appointed by the Board.

Resolution on Free Choice of Physicians for Federal Employees

This resolution, adopted by the House of Delegates at the Annual Session in 1949, was referred to the Council on Industrial Health, which, in turn, referred it to its Committee on Workmen's Compensation. That committee reports that the opinions expressed about the resolution indicate that there is some confusion as to objectives. The question is also raised as to the advisability of seeking an amendment to a federal law until more information is obtained about the effect of such amendment on medical practice in other states. In view of these circumstances, it is suggested that more study be given the matter based on further discussions with the authors of the original resolution.

Commission on Chronic Illness

The Commission on Chronic Illness is now housed in the headquarters building of the American Medical Association. The Commission is an outgrowth of the Joint Committee on Chronic Diseases, a cooperative effort on the part of the American Medical Association, the American Hospital Association, the American Public Health Association and the American Public Welfare Association established late in 1946 to explore the problem of chronic illness. After publication of a widely used statement, "Planning For the Chronically Ill," the Joint Committee began planning the establishment of a long range commission, calling itself in the meantime the Interim Commission on Chronic Illness. The U. S. Public Health Service cooperated in the work of the Interim Commission, which transferred its responsibilities in May 1949 to the Commission on Chronic Illness. The Commission is composed of approximately thirty-five members representing the general public, industry, labor, agriculture, education, religion, the social sciences, journalism, health and welfare. The American Medical Association is providing office space and financial support for the Commission, which has received additional funds from some other voluntary agencies and foundations. Dr. Morton I. Levin, on leave of absence from his duties as assistant commissioner for medical services of the New York State Department of Health, is serving as Director.

The participation of the American Medical Association in this effort is a part of the implementation of the Ninth Point in the Association's Twelve Point Program, which advocates "Provision of Facilities for Care and Rehabilitation of the Aged and Those with Chronic Disease and Various Other Groups Not Covered by Existing Proposals."

Expansion of Washington Office

Since the December 1949 meeting of the House of Delegates, the Washington Office has been moved into much larger and better equipped quarters and the personnel also has been increased. At the present time, Dr. Joseph Lawrence, Director, is assisted by two physicians, one lawyer, one staff writer and one administrative assistant. The Washington Office now occupies an entire floor of a new office building at 1523 L Street N. W.

The informational material now being prepared and distributed by the Washington Office includes the new "Capitol Clinic," providing additional information concerning the Washington scene that was not available in 1949.

Coordination Committee on Legislation

The House of Delegates at its meeting in Washington, D. C., in December 1949 adopted the following report of the Reference Committee on Legislation and Public Relations:

> Since the Washington office is now under the direction of the Board of Trustees instead of, as formerly, under the Council on Medical Service, in order to promote more effectively the activity of this office and implement its work, your reference committee recommends that the Board of Trustees appoint a committee of not less than seven members from the Trustees and general membership. The committee's function should be the facilitating of the activities on legislative matters and the dissemination and distribution of legislative information throughout the various states. Your committee furthermore recommends that the Board of Trustees give immediate consideration to proper financing of this committee, to permit adequate functioning in this field.

In accordance with this action, the Board of Trustees has appointed the following Coordination Committee on Legislation:

Dwight H. Murray, Chairman, Napa, Calif.
Oscar B. Hunter, Vice Chairman, Washington, D. C.
Joseph D. McCarthy, Omaha.
F. J. L. Blasingame, Wharton, Texas.
M. J. Dattelbaum, Brooklyn, N. Y.
Willis H. Huron, Iron Mountain, Mich.
Deering G. Smith, Nashua, N. H.
Julian P. Price, Florence, S. C.
McKinnie L. Phelps, Denver, Colo.

and ex officio

Edwin S. Hamilton, Kankakee, Ill.
Gunnar Gundersen, La Crosse, Wis.
Walter B. Martin, Norfolk, Va.

The Committee held its first meeting in Chicago, Jan. 15, 1950, at which time it was pointed out that the principal functions of the Committee are: (1) to streamline legislative action so as to get faster and more effective results in Washington; (2) to study and report on all legislation introduced; (3) to maintain knowledge of the current status of and take suitable action on all bills previously introduced; (4) to assure the dissemination of information to local and state medical societies with respect to current legislation and actions recommended, and (5) to recommend the names of physicians for the presentation of testimony to congressional committees.

The Committee also met on February 8 and March 30 and carefully studied all legislation pending and proposed. Between meetings contact has been maintained among the members by correspondence and, when necessary, by telephone. To facilitate the dissemination of information to the states, the Chairman has allocated to each member a number of states in his territory for which he is responsible.

The Committee has paid particular attention in its deliberations and activities to S. 1453—federal aid to medical education; H. R. 6000—to extend and improve the Federal Old-Age and Survivors Insurance System, to amend the public assistance and child welfare provisions of the Social Security Act and for other purposes; S. 1411—school health services act, and other fringe bills. Continuing effort is being made against the passage of these bills or those portions of them that are considered dangerous to the public health.

The Coordination Committee on Legislation has met jointly with the Executive Committee of the Board, the Director of the Washington Office and the Director of the Bureau of Legal Medicine and Legislation at each meeting. Thus, a close integration of activities connected with legislation has been achieved.

Bulletin for Woman's Auxiliary

Some time ago consideration was given to the publication of a Bulletin for the Woman's Auxiliary to the American Medical Association, which would appear monthly and would contain advertising material. This proposal has been carefully considered by the Board of Trustees, and it has been decided to cancel the project. There were a number of reasons for this action, the principal one being that a number of the Auxiliary's members did not desire the publication.

Respectfully submitted,

Louis H. Bauer, Chairman.
Gunnar Gundersen, Vice Chairman.
Edwin S. Hamilton, Secretary.
John H. Fitzgibbon.
James R. Miller.
Walter B. Martin.
Dwight H. Murray.
Edward J. McCormick.
F. J. L. Blasingame.

ADDENDA TO REPORT OF BOARD OF TRUSTEES

TREASURER'S REPORT

Report of the Treasurer of the American Medical Association for the Year Ended December 31, 1949

Investments (at cost) as at Jan. 1, 1949	$4,673,950.14	
Bonds purchased (at cost)	1,834,752.63	
	$6,508,702.77	
Less: Bonds called, matured or sold	1,792,155.98	
Investments as at Dec. 31, 1949		$4,716,546.79
Balance held for investment Jan. 1, 1949	$ 63,381.76	
Interest received on investments in 1949	155,079.39	
	$ 218,461.15	
Transferred to General Fund	185,403.57	
Uninvested Funds at Dec. 31, 1949		33,057.58
Invested and Uninvested Funds as at Dec. 31, 1949		$4,749,604.37

DAVIS MEMORIAL FUND

Balance in Fund Jan. 1, 1949	$ 8,205.05	
Interest earned on bank balance in 1949	102.88	
Funds on Deposit at Dec. 31, 1949		$ 8,307.93

AMERICAN MEDICAL ASSOCIATION RESEARCH FUND

Investments (at cost) as at Jan. 1, 1949	$1,484,637.50	
Bonds purchased (at cost)	110,103.13	
	$1,594,740.63	
Less: Bonds sold	103,531.25	
Investments as at Dec. 31, 1949		$1,491,209.38
Uninvested funds as at Jan. 1, 1949	$ 10,925.00	
Add: Gain from sale of securities	1,312.50	
	$ 12,237.50	
Less: Expended for purchase of securities	10,103.13	
Uninvested funds as at Dec. 31, 1949		2,134.37
Invested and Uninvested Funds as at Dec. 31, 1949		$1,493,343.75
Interest received on investments and transferred to General Fund to apply on Research expenditures	$ 33,350.00	

Josiah J. Moore, Treasurer.

AUDITOR'S REPORT

March 2, 1950.

To the Board of Trustees,
American Medical Association,
Chicago, Illinois.

Dear Sirs:

We have examined the balance sheet of the American Medical Association, as of Dec. 31, 1949, and the related statement of income for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The cash in banks was confirmed by certificates from the depositaries. Cash on hand was counted or confirmed.

The United States Government and other marketable securities were confirmed by an acknowledgment from the custodian.

We communicated with debtors representing a substantial portion of the outstanding balances on accounts receivable, requesting that they confirm the amounts. There were only minor exceptions reported and these were explained to our satisfaction. The accounts receivable were reviewed as to age and collecta-

bility, and it appears that the collection losses, if any, will be relatively immaterial.

Materials, supplies, work in progress, and publications on hand are stated in accordance with physical inventories taken and valued by employees under the direction of the management, and certified by officials of the Association as to description, quantities, condition and valuation. We made tests of the physical existence of the quantities of certain items selected by us, thereby satisfying ourselves that the recording of the quantities was carried out effectively. We tested the prices and computations and satisfied ourselves as to the general basis of valuation.

Expenditures charged to property and equipment accounts during the year, in our opinion, were properly capitalized as representing additions or improvements. The provision for depreciation for the year appears to be reasonable.

All liabilities of which we obtained knowledge in the course of our examination received appropriate recognition.

In our opinion, the accompanying balance sheet and statement of income present fairly the financial position of the American Medical Association at December 31, 1949, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

We have pleasure in reporting that the books are well maintained and that every facility was afforded us for proper conduct of the examination.

PEAT, MARWICK, MITCHELL & CO.

BALANCE SHEET

AS OF DECEMBER 31, 1949

ASSETS

Cash in Banks and on Hand		$ 262,599.59
Accounts Receivable:		
Advertising	$ 213,034.85	
Reprints	10,798.46	
Directory Report Service—18th Edition	14,323.59	
Miscellaneous accounts receivable	14,649.79	252,806.69
Interest Accrued on Investments		33,715.05
Inventories of Materials, Supplies, Work in Progress, and Publications—At cost		286,237.73
Expenditures on Publications in Progress—Less income applicable thereto		375,753.07
Prepaid Expenses, Deposits and Advances:		
Advances to cover commitments of the National Education Program	150,548.35	
Other deposits and advances	19,521.92	
Insurance, etc.	22,761.79	192,832.06
Marketable Securities—At cost (valuation based on market quotations, $4,755,492.00):		
United States Government securities	2,746,231.25	
Railroad, municipal, public utility and industrial bonds	1,970,315.54	4,716,546.79
Representing investments of:		
National Education Program	525,597.10	
General Fund	715,949.69	
Depreciation Reserve Fund	1,300,000.00	
Association Reserve Fund	350,000.00	
Retirement Reserve Fund	675,000.00	
Building Reserve Fund	450,000.00	
Equipment Modernization Reserve Fund	700,000.00	
American Medical Association Research Fund:		
United States Government securities—at cost (valuation based on market quotations, $1,466,485.64)	1,491,209.38	
Cash in bank	2,134.37	1,493,343.75
Property, Plant and Equipment—At cost:		
Land	328,773.98	
Building	$ 2,036,831.32	
Machinery and printing equipment	635,385.35	
Office and laboratory equipment	370,914.78	
	3,043,131.45	
Less—Reserve for depreciation	1,293,860.32	1,749,271.13 2,098,045.11
		$9,711,879.84

LIABILITIES

Accounts Payable and Accrued Expenses:		
Cooperative Medical Advertising Bureau		$ 42,366.69
Miscellaneous accounts payable		143,474.68
Taxes withheld from employees		28,016.59
Accrued payroll		21,983.68
Accrued taxes:		
Social security	$ 11,395.43	
Real estate and personal property	59,005.54	70,400.97
		306,442.61
National Education Program—Unexpended assessment collections reserved for future expenditures		676,145.45
Provision for Completion Costs of Publications not yet Issued		130,000.00
Unexpired Subscriptions to Publications		643,414.76
Deferred Credits—Directory sales and report service, and other credits applicable to subsequent period		47,335.46
American Medical Association Research Fund Reserve		1,493,343.75
Other Reserves:		
Association	350,000.00	
Retirement	675,000.00	
Building	450,000.00	
Equipment modernization	700,000.00	2,175,000.00
Capital Account:		
Balance at December 31, 1948	4,133,380.25	
Excess of income over expenses for year ended December 31, 1949	106,817.56	4,240,197.81
		$9,711,879.84

STATEMENT OF INCOME

FOR THE YEAR ENDED DECEMBER 31, 1949

Income:		
Fellowship dues		$ 75,560.00
Income from investments		152,857.32
Miscellaneous receipts and other income		34,460.47
		260,877.79
Publications (Periodicals):		
Subscriptions	$2,453,644.56	
Advertising	2,431,837.63	
	4,885,482.19	
Less—Cost and expenses	3,375,734.71	1,309,747.48
Books, pamphlets and reprints sold	232,689.97	
Less—Printing and other costs	186,274.02	46,415.95
National Education Program—Assessment collections	2,289,958.23	
Distributed as follows:		
Expenditures	$1,613,812.78	
Unexpended assessment collections reserved for future expenditures:		
Advanced to cover commitments	150,548.35	
Invested in marketable securities	525,597.10	2,289,958.23
Total income		1,617,041.22
Expenses:		
Councils, bureaus and committees	1,269,669.78	
Legal and investigating	18,316.32	
Employees' group annuities and past service allowances	184,582.62	
Social security taxes	37,654.94	1,510,223.66
Income in Excess of Expenses		$ 106,817.56

PUBLICATIONS (PERIODICALS) COSTS AND EXPENSES

FOR THE YEAR ENDED DECEMBER 31, 1949

Wages and salaries	$1,604,575.58
Paper stock	633,720.50
Contract printing—Labor and supplies	306,831.59
Engravings and illustrations	93,126.71
Ink	28,837.06
Magazine mailing supplies	4,073.32
Factory supplies	28,369.96
Repairs and renewals	5,916.64
Express and cartage	15,965.02
Power and light	19,238.07
Building maintenance expenses	119,208.70

Fuel	10,551.40
Insurance and taxes	67,836.97
Editorial news and reporting	31,542.57
Postage	219,043.90
Subscriptions and advertising commissions	190,445.78
Discounts	35,987.35
Exchange	2,633.74
Subscription promotion expense	58,235.78
Office supplies	40,574.32
Telephone and telegrams	13,931.69
Office printing	64,838.27
Binding	1,130.75
Miscellaneous operating expense	33,755.39
Employees' group hospital and life insurance	25,483.38
Loss on sales of equipment	2,095.42
Loss on metal drum sales	1,031.91
Adjustment of provision for completion costs of publications not yet issued	† 67,469.46
	3,591,512.79

Depreciation (Based on estimated remaining life):

Buildings	$ 39,537.13	
Machinery	25,598.20	
Type and factory equipment	2,810.90	
Furniture and equipment	14,380.08	82,326.31
		3,673,839.10
Deduct—Proportion of overhead expense charged to other publications and departments		98,104.39
		$3,575,734.71

Dagger (†) denotes red figures.

NOTE.—Total wages and salaries for year 1949 amounted to $2,870,479.59. Of this amount $1,604,575.98 is included above, $799,600.96 is shown in schedule of Expenses of Councils, Bureaus, Association and Special Committees, and the remainder $466,302.65 was disbursed in connection with the 18th Edition of the American Medical Directory now in preparation, and with the printing of books, reprints, pamphlets and printing in process at the close of the year.

EXPENSES OF COUNCILS, BUREAUS AND COMMITTEES

FOR THE YEAR ENDED DECEMBER 31, 1949

Salaries and wages	$ 799,600.96
Office printing and binding	58,107.70
Office supplies and repairs	27,277.70
Express, telephone and telegraph	14,758.11
Postage	17,307.95
Books and periodical subscriptions	3,477.32
Legislative services	5,655.66
Statistical data	16,519.75
Miscellaneous expenses	19,505.41
Educational material distributed	2,636.27
Staff, officers and special travel and trustees' meeting expenses	99,330.68
Radio broadcasting and electrical transcriptions	34,641.69
Inspection of hospitals and medical schools	27,325.80
Educational exhibits	$88.19
Grants, tests and investigations	14,905.30
Section secretaries' conference and honorariums	4,277.62
State secretaries' conference	11,540.37
Council and bureau conferences	71,912.69
Sundry committee expenses	40,300.61
Total	$1,269,669.78

NOTE.—The above expenses are allocated to the following Councils, Bureaus, and Committees:

Association	$ 182,117.52
Bureau of Health Education	116,781.01
Council on Pharmacy & Chemistry	134,079.87
A. M. A. Laboratory	49,451.14
Council on Physical Medicine and Rehabilitation	38,763.26
Council on Foods & Nutrition	31,011.80
Committee on Therapeutic Research	8,852.13
Council on Medical Education and Hospitals	193,800.49
Bureau of Legal Medicine & Legislation	42,121.95
Bureau of Investigation	12,522.31
Bureau of Medical Economic Research	112,556.52
Council on Industrial Health	43,225.23
Bureau of Exhibits	33,043.49
Council on Medical Service	64,892.91
A. M. A. Washington Office	87,523.21
Council on National Emergency Medical Service	9,448.20
Department of Press & Public Relations	85,708.58
Committee on Cosmetics	9,391.91
Committee on Rural Health	14,378.25
Total	$1,269,669.78

Supplementary Report of Board of Trustees

Dr. Louis H. Bauer, Chairman, then presented the following supplementary report:

RESOLUTIONS ON NURSING PROFESSION

WHEREAS, The American Medical Association recognizes with respect the enduring contribution of the nursing profession toward improvement and maintenance of the people's health; and

WHEREAS, The high level of health enjoyed by the American people results largely from the joint efforts of physicians and nurses practicing under the American Free Enterprise System, unhampered by political control and regimentation; and

WHEREAS, The resolution adopted by the House of Delegates of the American Nurses Association during the 1950 Biennial Convention, indicates clearly the desire of the nursing profession to improve and extend the Voluntary Health Insurance System and specifically urges the inclusion of adequate nursing service in Voluntary Health Insurance plans; and

WHEREAS, The American Medical Association, together with other interested groups, is engaged in a determined drive to extend coverage and broaden benefits of voluntary plans as rapidly as sound actuarial experience permits; and

WHEREAS, The American Medical Association desires to cooperate to the fullest extent with the American Nurses Association; therefore be it

Resolved, That the Council on Medical Service be directed to study the feasibility of including payment for nursing services in Voluntary Health Insurance Plan Benefits and report its findings to the House of Delegates at its next session; and be it further

Resolved, That in this study the Council on Medical Service request the cooperation of all groups qualified to advise on this subject, including the American Nurses Association, and that the Secretary and General Manager be directed to transmit a copy of this resolution to the American Nurses Association.

QUALITY OF MEDICAL CARE IN A NATIONAL HEALTH PROGRAM

The attention of the Board of Trustees has been called to the recommendations of the Subcommittee on Medical Care of the Committee on Administrative Practice of the American Public Health Association with respect to the quality of medical care in a National Health Program. These recommendations were published in the November 1949 issue of the *Journal of the American Public Health Association* and later reprinted and widely circulated by the Subcommittee. A critical analysis of this report by the Bureau of Medical Economic Research of the American Medical Association will appear in an early issue of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. The Board wishes to express its strong opposition to the socialist blueprint for medical care proposed in these recommendations and has directed the Secretary and General Manager to communicate with the American Public Health Association to ascertain whether or not these recommendations constitute the official policy of that association.

RESOLUTIONS ON REORGANIZATION PLAN NO. 27

WHEREAS, The President of the United States has recently given the Congress a plan to reorganize certain branches of the Federal government known as Reorganization Plan 27; and

WHEREAS, This plan is in direct conflict with the recommendations of the Hoover Commission; and

WHEREAS, It renders more difficult or impossible the creation of a department of health at any future time; and

WHEREAS, It ignores the fact that health, a direct concern of everyone, is entitled to equal governmental status with labor, commerce and similar activities which directly concern only a portion of the population yet have separate cabinet departments; and

WHEREAS, It does not promote economy; and

WHEREAS, It creates a triple holding company, a conglomerate department of health, education and security, most of whose work is not related; and

WHEREAS, It will not be a reorganization of administration, but a re-naming of an agency admittedly faulty in set up; and

WHEREAS, It will open the way for an ambitious secretary, entrusted with great power, to take over control of VA's medical department; and

WHEREAS, It will make possible federal control of medical education through granting and withholding scholarship, etc.; and

WHEREAS, It will point toward eventual federal domination of our voluntary hospital system; and

WHEREAS, It will create a master organization ready and anxious to take over administration of a national compulsory health insurance program; and

WHEREAS, It will place administration of the nation's health activities in the hands of a politically appointed secretary with no professional qualifications; and

WHEREAS, It will place the direct operation of medical programs in the hands of a Surgeon General who need not even be a doctor of medicine; and

WHEREAS, It will not, in the slightest degree, promise to improve the health and welfare of the American people; therefore be it

Resolved, That the American Medical Association go on record as opposed to Reorganization Plan 27 and in favor of Senate Resolution 302; and be it further

Resolved, That a copy of these resolutions be mailed to all senators and congressmaen as soon as possible; and be it further

Resolved, That state medical societies and other organizations be urged to oppose this plan rigorously.

The Speaker referred the Resolutions on Nursing Profession to the Reference Committee on Insurance and Medical Service; the Quality of Medical Care in a National Health Program to the Reference Committee on Reports of Board of Trustees and Secretary, and the Resolutions on Reorganization Plan No. 27 to the Reference Committee on Legislation and Public Relations.

Reports on Medical Education and Medical Practice in Great Britain

Dr. Louis H. Bauer, Chairman, Board of Trustees, reported that two commissions had gone to Great Britain, one to study the effect of the National Health Act on medical education and the other to study the National Health Act in operation. Mimeographed reports of the commissions were distributed to the members of the House and Dr. Walter B. Martin, Trustee, amplified the report of the commission to study the National Health Act in operation.

Report of Reference Committee on Rules and Order of Business

Dr. Jesse D. Hamer, Chairman, presented the following report and moved its adoption and the motion was seconded by Dr. Allen H. Bunce, Georgia, and carried:

Mr. Chairman and Members of the House of Delegates:

The members of the Reference Committee on Rules and Order of Business held a short meeting this morning, with a majority of the members present, and these are our recommendations to the House in view of the projected agenda that will be before it for consideration: That this session of the House recess at 12:30 today and reconvene at 1:30; that the afternoon session attempt to complete its work as nearly as possible by 4:30 p. m.; that in addition to the regular order of business tomorrow afternoon, this House of Delegates reconvene at 5:00 p. m. and recess at 6:30 p. m., in order to be present during the installation of the President, and that on Wednesday morning this House convene at 9:00 a. m.

Introduction of Dr. Philip Wiles, Official Representative of British Medical Association

On request of the Speaker, Dr. George F. Lull, Secretary, presented to the House Dr. Philip Wiles, London, who was officially representing the British Medical Association.

Progress Report of the Coordinating Committee

Dr. Elmer L. Henderson, Chairman of the Coordinating Committee, presented the following report, which was referred to the Reference Committee on Legislation and Public Relations:

Mr. Speaker, Members of the House of Delegates:

The National Education Campaign of the American Medical Association was organized just a year and a half ago, and the Coordinating Committee, under instructions from this House of Delegates, was given the great responsibility of its general supervision.

In the 18 months which have elapsed, American medicine has conducted a continuing drive in behalf of Voluntary Health Insurance and against Compulsory Health Insurance. The major results of the campaign are known to all of you—and to the vast majority of the American people. Our report is simplified by the fact that this has been a public campaign, publicly conducted—and that both its objectives and its accomplishments have been indelibly written in the public record.

We doctors are proud of the work we have done, and there has been no attempt at concealment of either our objectives or the methods we have used to achieve those objectives.

Out of medicine's campaign has come a great public crusade, not only to save freedom in medical practice, but to protect all the basic freedoms of the American people—and to stop the march of State Socialism in this country!

More than 10,000 national, state and local organizations, with many millions of members, have rallied to medicine's cause during the past year and a half—and have taken positive action against Compulsory Health Insurance, or any other form of socialized medicine. They have done so because we have succeeded in getting the plain facts in the case to them.

We can be very proud of that broadening front, because medicine has won the support of the greatest cross-section of civic groups and public organizations ever amassed on a controversial issue in the history of this country. And there is now a sharpened public awareness that medicine's battle for freedom affects not only doctors, but every American. The most eloquent report of progress we can make is that the advocates of socialized medicine, who were arrogantly confident at the start of 1949, are now fearful to seek a roll call on this issue in the Congress!

That is significant progress, because it reflects the mounting public opinion against Compulsory Health Insurance. But it also presents a difficult problem, which calls for a change in strategy and concentrated campaign activity. The doctors of America are ready for a vote on this issue, either in the Congress, or in the polling places of the nation! We are determined, furthermore, to bring this question to a definite decision! Tens of thousands of doctors, all over America, who have carried medicine's cause to the people, often at great sacrifice in time and money, will continue to be heavily burdened until this issue is resolved.

We cannot afford for that reason, as well as others, to permit the delaying tactics of our opponents to turn this into a long-drawn war of attrition. It has become imperative, if we are to avert an unending, exhaustive fight for survival, that we find a way to make public sentiment on this issue unmistakably clear. To achieve that clearcut decision, when there is little prospect that our opponents will risk a Congressional roll call, the Board of Trustees and the Coordinating Committee has authorized Whitaker & Baxter, our campaign directors, to conduct a greatly intensified campaign during the balance of this year.

This expanded program has one specific objective—to crystallize public opinion into a public mandate on this issue! We want an articulate public opinion, speaking with a voice that the socializers in Washington cannot defy or ignore. We are confident that if given an opportunity to speak on this issue, the people in every section of America would say "No"—and say it so emphatically that socialized medicine would become a dead issue, even in the offices of the Federal Security Agency. We intend to give them that opportunity.

The full power of American medicine's drive to a decision will be turned on early in October with a nationwide advertising campaign that will utilize three principal media—newspapers, radio and national magazines. More than 11,000 daily and weekly newspapers—every bona fide paper in the nation—will carry medicine's message in a dramatic, powerful advertisement, designed to give voice to the people's mandate on this issue. To build advertising impact, approximately 300 radio stations will carry an intensive "spot announcement" campaign, with hundreds of 30 second and one minute announcements being utilized to carry medicine's case to the radio audience. During the same critical period, when the campaign is being brought to a peak with newspaper and radio presentations, full-page A. M.A. advertisements will appear in 30 of the leading national magazines.

All members of the House already have received the first of a series of Informational Letters from Whitaker & Baxter giving details of this phase of the campaign and others will come to you during the weeks ahead. The Board of Trustees and the Coordinating Committee considered this program over a period of many months, and deliberated many hours on all the facets of the plan, before it was approved. We are confident it will help to solidify the confidence of the public in the

medical profession—and will serve to make the public's support of our position unmistakably clear in Washington.

The positive benefits of the advertising program, in stimulating the growth of the Voluntary Health Insurance systems, and in portraying American medicine's achievements, also will be very great. This advertising program is designed to reach every American—and we are confident that, not only the medical profession, but every field of endeavor, will benefit from this intensified campaign for American freedom. There are many aspects of the National Education Campaign with which you are thoroughly familiar and which require no report from this Committee. The campaign has gathered tremendous momentum this year, due, in part, to the sharply augmented drive directed by our National Campaign Headquarters, but also due, in large measure, to greatly increased activity on the part of crusading doctors all over the country.

The Voluntary Health Insurance systems are developing at a phenomenal pace, not only in terms of enrolment, but also in terms of improved coverage. As nearly as we can estimate from orders for campaign materials, more than 90,000 individual doctors now are actively and aggressively participating in medicine's campaign of public education.

In the six months which have intervened since our 1949 Campaign Report, submitted to the House of Delegates in December, more than 8,000 new organizations have taken their stand by medicine's side in the battle against socialization—and today we have 10,234 endorsing groups. This is due, largely, to intensified work by state and county medical societies—and to the extensive program of field work initiated by the National Campaign Headquarters. Since this campaign was launched, at the start of 1949, more than 77 million pamphlets, folders and leaflets, carrying medicine's message, have been distributed to the American people—and the demands for printed material have increased sharply this year.

All over the nation, too, doctors, exercising their rights as individual citizens, are campaigning actively for candidates whose convictions square with sound American principles—and are just as actively opposing those men in public life who have espoused the alien philosophy of socialization. American medicine's development as an aggressive, powerful force in public affairs has given new courage and heart to other professions, businesses and industries which are threatened with socialization—and no one doubts today that the doctors are making their influence for better government felt throughout this nation.

Sometimes we should go outside our own group, even to those who often disagree with us, to get a realistic appraisal of our campaign activities—and in closing this report, your Committee would like to quote from two such sources. To the doctors who may wonder whether their individual work as citizens is effective, the following paragraph from an editorial in a recent issue of the *United Mine Workers Journal*, commenting on the defeat of Senator Pepper in Florida, may prove reassuring:

"In 44 years of covering political campaigns in the nation and in many states, your editor has never witnessed such effective and productive quiet solicitation of votes as demonstrated by Florida doctors, druggists, dentists, hospital staffs, insurance companies and pharmaceutical representatives, aided and abetted by other professional men."

We believe you also should hear the final words of appraisal voiced by the *St. Louis Post-Dispatch*, in a recent article by its Washington correspondent, entitled: "Results of A. M. A. Political Drive." After a two column, objective review of the A. M. A.'s National Education Campaign, and the election activity of individual doctors, the *St. Louis Post-Dispatch* summed up as follows:

"The 140,000 members of the A. M. A. generally stand high in their own communities. They are well educated and have wide circles of friends, acquaintances and patients. Many take leading parts in community activities. They are in the large cities, towns and rural communities.

"Collectively and individually, they are now a political force to be reckoned with."

That, your Committee believes, from a critical source which has been opposed to our objectives, leaves nothing further to be said. Our work is far from ended; the fight to a decision still lies ahead. But if we work, we can win that decision.

Respectfully submitted,

ELMER L. HENDERSON, Chairman.
ERNEST E. IRONS.
LOUIS H. BAUER.
EDWIN S. HAMILTON.
GUNNAR GUNDERSEN.
WALTER B. MARTIN.
JAMES R. MILLER.
R. L. SENSENICH.
WILLIAM BATES.
JOHN W. CLINE.
R. B. ROBINS.
GEORGE F. LULL.

Report of Council on Medical Service

Dr. James R. McVay, Chairman, Council on Medical Service, presented the following report and supplementary report which were referred to the Reference Committee on Insurance and Medical Services:

To the Members of the House of Delegates of the American Medical Association:

This is a midyear report of the work of the Council on Medical Service.

ACTIVITIES OF CORRELATING COMMITTEES

1. The Correlating Committee on Extension of Hospitals and Other Facilities, under the chairmanship of Dr. Elmer Hess, Erie, Pa., has devoted its efforts to a revision of the Report of the Committee on Hospitals and the Practice of Medicine submitted to the House of Delegates in June 1949 and returned for revision in December. In returning the report, the House of Delegates referred it to the "original committee or a reasonable facsimile thereof." In view of the fact that the Correlating Committee on Extension of Hospitals and Other Facilities is made up of the original committee members plus two additional physicians, it has been considered to be a "reasonable facsimile thereof."

The Correlating Committee has gathered material and suggestions from all interested sources and has given much time and thought to suggested revisions. The Committee met in Washington, D. C., on June 2 and 3 to work on the revision and to hear from interested persons. A special report of its findings and conclusions will be made to the House of Delegates in June.

2. The Correlating Committee on Indigent Care held its organizational meeting in Chicago on Feb. 4 and 5, 1950. Dr. H. B. Mulholland, Charlottesville, Va., was elected chairman. During the two day session the Committee's discussion centered about the following matters:

a. The relationship of the American Medical Association to the state and county medical societies in indigent medical care programs.

b. The development of a study of various indigent medical care plans and possibly a critical analysis of some of these plans.

c. Basic principles for medical care programs for the medically indigent and indigent, possibly to be submitted in resolution form to the Council for its approval and presentation to the House of Delegates at the midwinter Clinical Session.

d. The development of minimal standards for indigent medical care plans.

e. The preparation of material and brochures as guides to local medical societies and welfare groups.

f. Coordination with the American Public Health Association and the American Public Welfare Association.

Questionnaires have been sent to all state medical associations and to 125 county medical societies, and much material has been collected from other sources. However, the Council will not give a full report of the Committee's activities until the meeting of the House of Delegates in Denver.

3. The Correlating Committee on Maternal and Child Care held its organizational meeting on June 4 in Chicago and will take up its work during the summer months.

4. The Correlating Committee on Medical Care for Industrial Workers has met twice—in Chicago on Nov. 4, 1949, and in New York on Feb. 18 and 19, 1950. Dr. William A. Sawyer, Rochester, New York, was elected chairman. The Committee has set forth the following projects for its study and consideration.

a. A review of the scope of the medical care programs (non-occupational) now available to industrial workers. This would include quality, costs, benefits, sponsorship and control as well as what the profession is doing in this field and the role played by the specialty groups such as the industrial surgeons.

b. A definition to distinguish between industrial workers and other workers. For instance, should the term "industrial workers" include all gainfully employed workers, all occupational groups, or should it be considered in its limited sense?

c. A review and evaluation of the status of physicians in medical care programs for industrial workers, including the remunerative aspects as well as those having to do with administration.

d. A review of the trends in medical care for industrial workers from the point of view of schools of public health, from the point of view of its effect on the demands for compulsory sickness insurance and from the point of view of changes in union policy.

In addition, the Committee has given much consideration to the development of a suggested policy on temporary cash sickness benefits legislation. It is quite possible that these suggestions will be completed by June, and, if so, they will be included in a supplementary report to the House of Delegates.

5. The Correlating Committee on Medical Care of Veterans plans to hold its organizational meeting in San Francisco on June 24. The Committee has delayed its activities so that there might be no conflict with the Special Committee on Veterans Affairs, authorized by the House of Delegates in December 1949. This special committee is to make definite recommendations to the House of Delegates in June regarding the medical and hospital care of veterans with non-service-connected disabilities. Following the June session, the Council's Correlating Committee will take up its work in the field of veterans medical care.

6. The Correlating Committee on Prepayment Hospital and Medical Service met in Chicago on April 23 and on June 3, 1950. Dr. A. W. Adson, Rochester, Minn., was elected chairman. The Committee plans to submit a report to the Council before the June meeting and, if this is completed, it will be included in a supplementary report.

7. The Correlating Committee on Relations with Lay Sponsored Voluntary Health Plans met in Washington, D. C., in December 1949, and in Chicago on June 2. Dr. L. W. Larson, Bismarck, N. D., was elected chairman. The Committee is working on the development of suitable annotations to the Twenty Principles adopted by the House of Delegates in June 1949. If these are completed before the San Francisco Session, they will be included in a supplementary report to the House of Delegates.

VOLUNTARY HEALTH INSURANCE

Regional Conferences.—With the approval of the Board of Trustees, the Council sponsored four Regional Conferences on Voluntary Health Insurance, the Southern, Southeastern, Rocky Mountain and North Central. The meeting places, dates, and states invited were as follows:

SOUTHERN—FORT WORTH, TEXAS, MAY 6

Arkansas	Mississippi
Kansas	Oklahoma
Louisiana	Texas

SOUTHEASTERN—RALEIGH, NORTH CAROLINA, MAY 13

Alabama	North Carolina
Florida	South Carolina
Georgia	Tennessee
Kentucky	Virginia

ROCKY MOUNTAIN—SALT LAKE CITY, UTAH, MAY 20

Arizona	Oregon
Idaho	Utah
Nevada	Wyoming
New Mexico	

NORTH CENTRAL—SIOUX FALLS, SOUTH DAKOTA, MAY 27

Iowa	North Dakota
Minnesota	South Dakota

General Conference on Voluntary Health Insurance.—Immediately after the Regional Conferences, the Council will conduct a general conference to explore methods of furthering the effectiveness of voluntary health insurance. This conference is scheduled to be held in Chicago, Sunday, June 4, and will be attended by the Council, the Council's Correlating Committee on Prepayment Hospital and Medical Service, representatives of the Health Insurance Council of the American Hospital Association, Council on Prepayment Plans and Hospital Reimbursement of the Blue Shield Commission and of the Blue Cross Commission.

Further reference to the Regional Conferences and the General Conference will be made in the Council's Supplementary Report.

OTHER ACTIVITIES AND PROJECTS

Health Councils.—Since the Council began to stress community leadership some two years ago, the health council movement has spread into almost every state. As of May 1 over 530 community health councils were listed in the Council's files, a big increase from the 82 councils reported two years ago. Forty-five state health councils in 31 states and the District of Columbia have also been reported as compared to twenty reported in 1948. The difference in figures, of course, arises from the fact that several states have two types of state councils—an interprofessional council and a lay-professional council.

To obtain a comprehensive picture of every aspect of health council activity, the Council on Medical Service has cooperated with the National Health Council in a nationwide survey. The results of this survey should be ready by late Fall. In the meantime, the Council continues to supply material on this subject to medical societies and interested lay groups. However, some disagreement exists as to the part the medical profession should play in health council activity, the relationship that should exist between local and state health councils and a number of other important problems. To approach these problems directly the Council plans to sponsor, in conjunction with the Michigan State Medical Society, a national conference on health councils early in the Fall. From this exchange of ideas it is hoped to arrive at a sound and united policy for medical society participation in the health council movement.

Physicians Placement Service.—The Council is carrying out the three recommendations made by the Reference Committee on Insurance and Medical Service, approved by the House of Delegates in December, that the Council on Medical Service study the results of community cooperation in sections where it has proved successful; that the Council study ways and means of cooperating with state and county medical societies in obtaining community cooperation, and that an effort be made to secure the cooperation of the various medical schools in providing postgraduate facilities for physicians practicing in these or similar communities.

Action on the first two recommendations is well under way and will be reported on in detail in the Council's annual report. Possibilities for carrying out the third recommendation are being investigated and will be reported on as soon as plans can be developed.

Requests for Material.—Requests for information on voluntary health insurance, socialized medicine, and other related matters continue to be received at about the same rate as last year. During the first four months of 1950 over 60,000 items were distributed to physicians, speakers' bureaus, debate students, individuals participating in essay contests and others. Most of these items were sent in response to individual requests. Requests for large quantities were forwarded to the National Education Campaign headquarters.

Grievance Committees.—Since the action taken by the House of Delegates in December, the subject of grievance committees has received much attention on the part of medical societies. The Council now has information on 12 state medical associations which have committees that perform this function, and a number of local societies have established similar methods and mechanisms for handling grievances. An inventory is being taken in this field, and questionnaires have been sent to both state and local medical societies. The Public Relations Department is cooperating with the Council in this project and will assist in preparing a pamphlet describing the various approaches to the grievance committee problem.

Industrial Health Plans.—In February letters were sent to 176 business organizations requesting information on temporary disability coverage, medical, surgical and hospital coverage and other health benefits not connected with Workmen's Compensation. The list of those contacted includes industries, utilities, manufacturers and railroads, as well as financial, processing, mercantile and other types of organizations. Of the 131 replies received, 111 supplied information which is being tabulated for the use of the Correlating Committee on Medical Care for Industrial Workers in its studies.

Emergency Call Plans.—The Council has continued to follow the development of emergency call plans. An ever-increasing number of local medical societies have set up programs for both night and emergency calls. In several communities the pharmacists are cooperating in these efforts by establishing similar programs among the members of their organizations. Many local societies are doing an outstanding job of advertising these services to the public. The Council now has available loan kits of information on organizing, operating and publicizing emergency call plans.

Medical Society Bulletins.—The Council office receives 111 county and city medical society bulletins. Of these, 96 are monthly publications, six are bimonthly, six are weekly and three are quarterly. These bulletins provide much information on the activities of the county medical societies and are invaluable in maintaining up-to-date files. On the other hand, the county society bulletins receive little or no credit for the excellent service they render to the medical profession. In view of this, the Council is preparing a format for a nationwide appraisal program for the purpose of granting general recognition to all bulletin publications and special recognition to those adjudged best. With the approval of the House of Delegates a format for such a program will be submitted at the Clinical Session in December.

Roster of Executive Secretaries.—The Roster of Executive Secretaries of State Medical Associations and County Medical Societies and Editors of County Medical Society Bulletins continues to receive much favorable comment from the persons working in this field. The Council has published the roster semi-annually for the past two years with the latest revision being made in March 1950. The increase in the size of the roster each time it is reprinted reflects the growth in the number of lay executives in the field of medical organization and in the number of bulletins being published. The latest edition contains 129 executives of state and county medical societies. At the suggestion of several medical society executives the Council plans to compile and publish a separate list of other lay executives including field secretaries, directors of public relations and other key personnel in medical association offices.

Miscellaneous Activities

In June 1948 the Council conducted a survey of the activities of a selected group of county medical societies. Such a survey will again be conducted this summer. The purpose of this study will be to learn how many of the medical societies sponsor or participate in a given list of activities. Activities included in this list will be: Regular scientific meetngs; regular postgraduate programs; library facilities for members; publication of bulletins or news letters; public relations programs; speakers' bureaus; malpractice insurance programs; collection agencies; emergency call plans; grievance committees; health councils; interprofessional relations councils; indigent care programs; industrial health programs; chronic illness programs; blood bank programs; rheumatic fever control programs; cancer detection programs; diabetes detection programs, and tuberculosis case finding programs.

The main sources for information and material on all of these projects include questionnaires, correspondence and the medical society bulletins. Unfortunately, many activities do not come to the attention of the Council. The Council on Medical Service therefore recommends to the House of Delegates that it urge the state and local medical societies to keep the Council informed on their participation in or embarkment on any new activities in the field of medical service, and that it further encourage the component and constituent societies to complete and return the questionnaires which are directed to them for information. The Council sincerely appreciates receiving any material which these societies send to its office and hopes that more will keep the Council informed of their projects and activities.

Respectfully submitted,

James R. McVay, Chairman.
Elmer Hess, Vice Chairman.
Jesse D. Hamer.
J. D. McCarthy.
Thomas A. McGoldrick.
H. B. Mulholland.
Ernest E. Irons.
R. L. Sensenich.
Walter B. Martin.
George F. Lull.
Mr. Thomas A. Hendricks, Secretary.

Supplementary Report of Council on Medical Service

To the Members of the House of Delegates of the American Medical Association:

The Council on Medical Service, in its report to the House of Delegates gave a resumé of some of the activities and projects being carried on during 1950. Since this was but a midyear progress report, the resumé was necessarily brief. A full account of the Council's work will be presented in its Annual report at the Clinical Session. At this time, however, the Council would like to supplement its remarks concerning the Regional Conferences and the General Conference on Voluntary Health Insurance.

Regional Conferences: At the suggestion of the Council on Medical Service and with the approval of the Board of Trustees, four regional conferences on Voluntary Health Insurance were held: Fort Worth, Texas, on May 6; Raleigh, North Carolina, on May 13; Salt Lake City, Utah, on May 20; and Sioux Falls, South Dakota, on May 27. The chairmen of the various conferences as listed above were: Drs. James R. McVay; Henry B. Mulholland; J. D. Hamer and J. D. McCarthy.

In each instance, the invitations were extended directly to the presidents and secretaries of constituent state medical associations asking them to attend and requesting them to designate additional representation from the state associations, medical

society prepayment medical care plans (including Blue Shield), the Blue Cross hospital plans, or from any other groups the state associations wished to have present. The Health Insurance Council was asked to designate representatives of private insurance carriers available in each of the areas. The Blue Shield Commission and Blue Cross Commission staffs were also invited to participate but declined the invitation.

Since these conferences were for the purpose of discussing ways and means of increasing enrolment in voluntary health insurance, only those states in which the enrolment was below the national average were invited. Of the twenty-five states receiving invitations, all but one sent representatives. Probably the outstanding achievement of the regional conferences is that they appear to be the first instance in which all groups interested in voluntary health insurance met for the purposes of exchanging ideas, discussing problems, and, in general, furthering the effectiveness of all voluntary efforts.

While these conferences were exploratory in nature, some of the definite points developed were:

(a) a need for further cooperation in solving problems common to all.
(b) necessity for continued and constructive competition among the various health insurance agencies.
(c) most problems can best be solved at the local level, provided all agencies meet and discuss their mutual problems.
(d) a request that the American Medical Association develop a guide whereby constituent associations and component societies can recognize and cooperate with all duly qualified insurers in the field of voluntary health insurance.
(e) The necessity for continuing these regional conferences with all states included under the sponsorship of the Council on Medical Service.

General Conference on Voluntary Health Insurance: In compliance with the request of the House of Delegates and as a sequel to the four Regional conferences, a general conference was sponsored by the Council and its Correlating Committee on Prepayment Hospital and Medical Service on June 4, 1950, in Chicago. Organizations represented were:

American Medical Association
Blue Cross Commission
Blue Shield Commission
Canadian Life Insurance Officers Association
Council on Prepayment Plans and Hospital Reimbursement of the American Hospital Association.
Health Information Foundation
Health Insurance Council
Whitaker & Baxter

This general conference developed on a national level most of the same points covered by the Regional conferences. It is most encouraging to report that a number of insurers, following the lead of California Physicians' Service, are experimenting in the field of chronic disease coverage. The Council will keep the House of Delegates informed as these experiments develop and as experience is gained.

It is the recommendation of the Council that these general conferences should be continued to develop more effective liaison and at the same time encourage regional and local conferences along the same lines.

Statement on Voluntary Health Insurance: The function of the Correlating Committee on Prepayment Hospital and Medical Service is that of an advisory committee to the Council on Medical Service on problems of voluntary prepayment hospital and medical care. This Committee is composed of Drs. A. W. Adson, Chairman; E. Vincent Askey; Percy E. Hopkins; J. D. McCarthy; James R. McVay; H. E. Nichols; Carl Vohs, and Carlton E. Wertz.

The Committee has submitted the following statement which has been approved by the Council and is now presented to the House of Delegates.

The medical profession has always endeavored to render the highest quality of medical care at all times. It recognizes economic trends, including "installment buying," and acknowledges the advantages of budgetary arrangements for medical and hospital care. A re-education of the public is necessary to inform it that medical and hospital care benefits are among the necessities of life to be included with food, clothing and shelter, and that they are not a luxury to be provided by the federal government.

Since the practice of medicine is a human service, the ideal arrangement is that in which the patient has a free choice of his physician.

There are many prepayment plans in operation. It is obvious that suggestions can be made to further the efficiency of these plans to meet the medical and hospital benefit needs of the American public.

It is likewise obvious that voluntary prepayment medical and hospital care benefits should be made more generally available to individuals, to families, and to small groups as well as to larger employed groups in the various industries.

The Council through its Correlating Committee on Prepayment Hospital and Medical Service will attempt to evaluate the problems of medical and hospital care benefits and offer suggestions concerning the type of medical and hospital contracts that are needed by individuals and various groups and will make these suggestions available to organizations and insurance companies supplying prepayment medical and hospital care benefits.

Many agencies are required to extend voluntary prepayment medical and hospital benefit insurance. Blue Shield, Blue Cross and commercial insurance companies should establish liaison arrangements in furthering the enrolment of new members.

Many overlapping contracts for medical and hospital care benefits have given rise to misunderstandings. The hospital contract should include only those services that pertain to the patient's hospital care. Hospital benefits should not include those services usually or properly rendered by a doctor of medicine.

The present trend in labor negotiations is to include medical and hospital care benefits; therefore it is important that standards of good medical and hospital care should be recognized and maintained and not be subject to curtailment by bargaining on the sole basis of the monetary cost involved.

The medical profession should serve as advisors to all groups offering prepayment medical and hospital care benefits inasmuch as the medical profession is best able to determine what are adequate plans for the care of the sick.

The insured should participate in the cost of medical and hospital protection since this preserves initiative and minimizes abuse of the service.

Specific suggestions will follow as surveys and investigations are made of the various medical and hospital prepayment benefit plans.

Lay-Sponsored Voluntary Health Plans: The House of Delegates, at its last session, authorized the Council's Correlating Committee on Relations with Lay-Sponsored Voluntary Health Plans to develop suggested annotations to the Twenty Principles to be used as guides by constituent associations and component societies as an aid in evaluating such plans.

The Correlating Committee has spent much time and has given careful thought to the annotation of the Twenty Principles. The Committee has presented suggested annotations to the Council and these suggestions have been considered. While the Council is of the opinion that much is to be said for these annotations, the Council believes that because of the complexity of the question and in the interest of accuracy and clarity, this entire subject should be studied further. We, therefore, wish to report that definite progress has been made in developing a set of annotations to the Twenty Principles for Lay-Sponsored Voluntary Health Plans and that a complete report on this subject will be submitted to the House of Delegates at a later date.

1950 Prepayment Booklet: The 1950 edition of the Council's Voluntary Prepayment Medical Care Plan booklet is just off the press and copies will be available for each member of the House of Delegates. Attention is invited to the Voluntary Health Insurance exhibit in the Scientific Exhibit section at the Auditorium, booth Number 602, where it can be seen just how one state compares with another state in voluntary health insurance enrolment.

Temporary Cash Sickness Benefits Legislation: In the Council Report reference is made to a study of temporary cash sickness benefits legislation by the Council's Correlating Committee on Medical Care for Industrial Workers.

The members of this Correlating Committee are: Drs. William A. Sawyer, Chairman; Warren F. Draper; John M. Emmett; Thomas A. McGoldrick; Leo Price; Frederick Slobe, and Harold A. Vonachen. This Committee has now reported its recommendations to the Council. After consideration of these recommendations, it is the opinion of the Council that before reporting further on the matter of temporary cash sickness benefits legislation, this subject should be discussed with the state medical associations. In view of this, and with the permission of the House of Delegates, the Council will invite representatives of the state associations to participate in a conference on this subject at the earliest possible date and submit a complete statement to the House of Delegates at its next session.

Respectfully submitted,

James R. McVay, Chairman.
Elmer Hess, Vice Chairman.
Jesse D. Hamer.
J. D. McCarthy.
Thomas A. McGoldrick.
H. B. Mulholland.
Ernest E. Irons.
R. L. Sensenich.
Walter B. Martin.
George F. Lull.
Mr. Thomas A. Hendricks, Secretary.

Report of Council on Medical Education and Hospitals

Dr. Harvey B. Stone as Acting Chairman, presented the following report and supplementary report of the Council on Medical Education and Hospitals, which were referred to the Reference Committee on Medical Education:

To the Members of the House of Delegates of the American Medical Association:

Association of Internes and Medical Students

At the June 1948 meeting, the House of Delegates adopted a resolution instructing the Council on Medical Education and Hospitals to investigate the Association of Internes and Medical Students and the International Union of Students as to facts, tendencies, affiliations and objectives and to make a report of its findings to the House of Delegates. In fulfilment of these instructions, the Council submits the following report.

The Council wishes to remind the members of the House of Delegates and others who may read this report that it possesses neither the authority nor the resources that are invested in a governmental agency empowered to conduct official investigations. It must be recognized, therefore, that in carrying out the instructions of the House of Delegates the only procedure open to the Council was to compile such information as might be generally available concerning this organization. It must be further recognized that in an unofficial investigation of this type the extent to which facts can be established and hence the extent to which judgments, either favorable or unfavorable, can be formulated is definitely limited.

This report is based on information obtained from the deans of the medical schools, from individual physicians and medical students, from the officers of the Association of Internes and Medical Students, from the publications of that organizations, from the publications of the United States House of Representatives Committee on Un-American Activities and from other publications carrying information about this organization that have come to the attention of the Council. A reply to the Council's findings prepared by the National Executive Committee of the Association of Internes and Medical Students is presented as an addendum to the Council's report.

The Association of Internes and Medical Students was formed in 1941 as a merger of the Association of Medical Students, organized in 1937, and the Interne Council of Greater New York, organized in 1934. The *Interne*, which is published monthly, is its official publication.

The association states its objectives to be as follows:

1. Increasing the educational opportunities for medical students and young physicians.
2. Representation of the students in the solution of the many problems existent in the fields of medical education.
3. Preparation of its members for their responsibilities in the medical profession.

Membership is open to any medical student, intern or resident in the United States. Ten or more members in one institution may constitute a chapter. Persons in schools or hospitals which have no chapters may join as members at large. In November 1949, the association reported that it had approximately 2,000 members and that there were chapters at 18 medical schools and 13 hospitals.

The individual chapters are autonomous. The national policy of the association is determined by the annual convention at which each chapter is represented by delegates in proportion to its membership. There are no salaried or permanent officers. The national convention elects a National Executive Committee to carry out its decisions. This committee consists of the national officers, the regional chairmen and the chairmen of the national committees. In 1948 the association listed the following national committees, each of which is located at an individual chapter:

1. Medical Education
2. Medical Student Welfare
3. Intern Welfare and Education
4. Medical Economics and Sociology
5. Discrimination
6. Academic Freedom and Vivisection
7. Cooperation with Other Student Organizations

The association lists among the major accomplishments of its national committees:

1. Establishment of student faculty committees which have increased the effectiveness of the medical curriculums.
2. Surveys on the status of medical education in various areas of the country.
3. The adoption by the association of minimum standards for student food, housing and health services based on surveys of existing conditions.
4. Contributed to efforts which led to Federal Security Agency's granting loans to medical students in 1941.
5. Support for the development of a National Science Foundation.
6. Support for legislation to increase subsistence benefits under G. I. Bill.
7. Advocated fully autonomous student governments in medical schools.
8. Endorsement of the Student Bill of Rights adopted by by the National Student Association.
9. Conducted a study on internships with the support of the Commonwealth Fund.
10. Successful action to improve quality of food provided interns in several hospitals.
11. Established a scale of minimum annual salaries of $1,200 for interns, $1,500 for assistant residents and $2,000 for residents.
12. Establishment of a speakers bureau and issuance of publication on the status of medical care in the United States and the various legislative measures proposed to improve medical care.
13. Arranging lectures, symposia and surveys in opposition to the practice of discrimination in selection of students, house staff members and the dispensation of medical care.
14. Active support of the bill introduced in New York State legislature to remove tax exemption from any institution found guilty of discriminatory practices.
15. Cooperation with the National Society for Medical Research in combating antivivisection.
16. The association at its 1948 convention endorsed the principle of compulsory health insurance.

The association has been active in international affairs, particularly in promoting student exchanges and in providing medical relief. Between 1946 and 1948, the association's Relief Committee sent "many tons" of medical books, journals and supplies to China and Europe. Its Exchange Committee has arranged low cost comprehensive opportunities for American medical students to tour Europe and to participate in world student activities, including attendance at the International Physiological Congress in England in 1947 and attendance at the International Clinical Congress in England in 1948.

The association participated in the establishment of the International Union of Students in 1946 and became an affiliate of this organization. With respect to its affiliation with this organization, the Association of Internes and Medical Students has stated:

"It is true that there are student organizations from countries with Communist governments in the International Union of Students. But to infer that this imputes 'Communist affiliations' or tendencies would be just as foolish as to impute similar motives to the American Medical Association, which as a member of the World Medical Association (and indirectly in the World Health Organization) is also affiliated with organizations from countries with Communist governments. As the resolution passed at the 1948 Convention of the Association of Internes and Medical Students reaffirming our affiliation with the International Union of Students states: 'Although the Association of Internes and Medical Students does not agree with every action taken by the International Union of Students, our point of view is presented, considered and incorporated into the results in accordance with democratic procedure. Although the scope of the International Union of Students is broader than ours, there exists a large area of common interest between the organizations. Although some student movements do not participate in the International Union of Students, it is nevertheless the outstanding and most representative world student body.'"

On Dec. 18, 1948, the Committee on Un-American Activities of the United States House of Representatives prepared and released a publication entitled "Citations by Official Government Agencies of Organizations and Publications Found to be Communist or Communist Fronts." This publication contains the following citations of the International Union of Students:

"1. 'The World Federation of Democratic Youth brought into being the International Union of Students, which held a meeting in Prague on August 17-31, 1946. The administration and direction of this project was entrusted to a 17-man executive committee, of whom 12 were known Communists.' (Congressional Committee on Un-American Activities, Report No. 271, April 17, 1947, page 13.)

"2. The above (the International Union of Students) which held a meeting in Prague on August 17-31, 1946, sprang out of the World Federation of Democratic Youth, which is 'part of the Communist International solar system.'" (California Committee on Un-American Activities, Report, 1948, page 187.)

In the same publication the Committee on Un-American Activities reported the following citations of the World Federation of Democratic Youth.

"1. 'The AYD (American Youth for Democracy) is affiliated with the World Federation of Democratic Youth, which was founded in London in November 1945 by delegates from over 50 nations. * * * From the outset the World Federation of Democratic Youth demonstrated that it was far more interested in serving as a pressure group in behalf of Soviet foreign policy than it was in the specific problems of international youth. * * * So strong was the Communist domination at the London conference that it aroused the deepest concern of the English bishops.' (Congressional Committee on Un-American Activities, Report No. 271, April 17, 1947, pages 12 and 13.)

"2. Cited as a 'part of the Communist International solar system,' which was founded in London November 1945 by delegates from more than 50 nations. With it is affiliated the American Youth for Democracy.'" (California Committee on Un-American Activities, Report, 1948, page 187.)

It is understood from newspaper reports that at its national convention in December 1949 the Association of Internes and Medical Students voted to disaffiliate from the International Union of Students, although voting at the same time to cooperate with that organization in arranging exchange of students.

In an article entitled "American Students and the I. U. S." that appeared in the July-August 1948 issue of the *Interne*, the Association's vice president for international cooperation made the following statement:

"Since most of America's students unlike the medical students are not aware of the benefits to be derived from the I. U. S., the Association of Internes and Medical Students, which has derived so much from its cooperation and affiliation has taken the initiative in recently joining the 'Committee for International Student Cooperation.' The Committee, members of which are leaders in the Association of Internes and Medical Students, National Intercollegiate Christian Council, National Students Association, Students for Wallace, American Youth for Democracy and other organizations has as its first tasks: 1. To provide American students with factual information about the I. U. S., 2. To establish means by which American students could avail themselves of the many travel facilities arranged by the I. U. S., 3. To broaden American student participation in the I. U. S."

In the publication of the House Committee on Un-American Activities referred to above, the following citations appear concerning American Youth for Democracy:

"1. Cited as subversive and Communist. (Attorney General Tom Clark, letters to Loyalty Review Board, released Dec. 4, 1947 and Sept. 21, 1948.)

"2. Cited as the new name under which the Young Communist League operates and which also largely absorbed the American Youth Congress. (Special Committee on Un-American Activities, Report, March 29, 1944, page 102.)

"3. Cited as a front formed in October 1943 to succeed the Young Communist League and for the purpose of exploiting to the advantage of a foreign power the idealism, inexperience, and craving to join which is characteristic of American college youth. Its 'high-sounding slogans' cover 'a determined effort to disaffect our youth and to turn them against religion, the American home, against the college authorities, and against the American Government itself.' (Congressional Committee on Un-American Activities, Report No. 271, April 17, 1947.)

"4. Cited as a Communist transmission belt and successor to the Young Communist League. (California Committee on Un-American Activities, Report, 1947, pages 103 and 369.)"

It is said that the first of these citations in which the attorney general designated this organization as subversive and Communist is the strongest public condemnation that can be made by the federal government of a subversive organization.

The Council's attention has also been directed to the April 1938 issue of the "Medical Center Worker—Issued by the Communist Party Unit of Medical Center (Columbia Presbyterian)," which contains the following statement:

"Medical students with a sense of responsibility to their profession should join the Association of Medical Students and encourage this organization to take a definite position behind the growing progressive forces in American medicine."

As already noted, the Association of Medical Students was one of the two organizations which merged in 1941 to form the Association of Internes and Medical Students.

The Council has reviewed those programs of the annual national convention of the Association of Internes and Medical Students and those numbers of its publication, the *Interne*, that it has had available. From this study, it is apparent that at its national conventions and in the pages of its publication, the Association has welcomed papers by officers of the American Medical Association, by prominent leaders in medicine and medical education and by members of the medical profession who are known to be affiliated with organizations and institutions that have been cited as Communist fronts or which have been declared subversive by the Department of Justice.

It has not been feasible for the Council to attempt to poll the medical students, interns and residents of the country to determine their attitude toward the Association of Internes and

Medical Students. However, individual students and house officers have made known their concern that, while in their opinion the majority of medical students and house officers are not sympathetic to many of the policies and activities of the association, the general public may mistakenly believe that this organization does represent the bulk of medical students and house officers. Several letters from groups of interns and residents have been published in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION pointing out that the association does not speak for them.

The following quotation from a letter by a medical student illustrates the concern that individuals have expressed about the association:

"Although some of the students from America who were at the International Clinical Teaching Congress in England this summer and got the goods on the A. I. M. S. are reluctant to put it in writing, I think that I have been able to acquire a general impression that is a fair one.

"First of all, I spent an afternoon at the Congress and several of the European delegates, upon finding that I was not one of the American representatives, spoke to me with some concern. They wondered if the A. I. M. S. delegates could be typical representatives of our schools, for most of them were members of so-called minorities that claimed to be discriminated against. What is more, the Europeans thought their tendencies in political thinking were more Communistic than American. Furthermore, when these American delegates pointed out the flaws in our medical system, without balancing them with a true picture of the unequalled advantages that we have in medicine and medical education, it was considered to be providing adverse propaganda. This is but one example, but it illustrates the sort of impression A. I. M. S. seems to make generally."

In the latter part of 1948 a letter of inquiry concerning the Association of Internes and Medical Students was sent to the deans of the medical schools. In the course of the next several months, replies were received from all schools. At that time 12 medical schools reported active chapters of the Association of Internes and Medical Students, five reported inactive chapters, two reported that chapters were being organized and 58 schools reported that they did not have chapters. Several deans spoke very favorably about the activities of the chapters in their schools. Other deans, however, reported that it was their own opinion and the opinion of many of their students that the organization was distinctly leftist, that the propriety of certain of its tactics was open to question and that the organization was active in sponsoring political projects far removed from the objectives that would ordinarily be expected of a group organized primarily for the benefit of medical students and interns. One dean reported that he was in possession of very good evidence that the president of the local chapter the year before was closely associated with members of the Communist party and was invited to attend meetings of Communists at which the latest party line laid down by the Cominform was discussed.

On the basis of its study, the Council has reached the following conclusions:

1. The Association of Internes and Medical Students has enrolled as members not over 5 per cent of the total number of medical students, interns and residents in the United States.
2. Probably the great majority of the members of the association are well intentioned individuals who have joined the association because of the opportunity that they believed it would offer for discussion and action on problems of legitimate concern to medical students, interns and residents.
3. The character and activities of the local chapters vary considerably.
4. The association has not been declared a subversive or Communist front organization by any official agency of government.
5. The national association does have the general reputation of being a left wing organization. This reputation would seem to be justified by its history of close and sympathetic affiliation with the International Union of Students, its participation in joint undertakings with American Youth for Democracy and the frank public support that its predecessor the Association of Medical Students has received on at least one occasion from a unit of the Communist Party.
6. Information should be available concerning the reputation of the Association of Internes and Medical Students as a left wing group to those medical students, interns, residents and other members of the medical profession who are considering identifying themselves with the association.

The Council wishes to state its firm belief that American medical students are mature and responsible persons and that it is both proper and desirable that they should be concerned with problems of medical education, medical practice, hospital care and medical economics. The Council believes, also, that it is entirely proper that medical students should seek to organize themselves to study these problems and to make their contribution toward their solution.

Because of the conclusions reached above, however, the Council cannot recommend that the American Medical Association lend its support to the activities of the Association of Internes and Medical Students as presently constituted. The Council does believe that there is need for an independent organization of medical students which will develop policies and activities that are acceptable to the majority of medical students. If and when such an organization is developed, the Council believes that it should have the active support and encouragement of the medical profession.

Respectfully submitted,

H. G. WEISKOTTEN, Chairman.
HARVEY B. STONE.
RUSSELL L. HADEN.
WILLIAM S. MIDDLETON.
VICTOR JOHNSON.
WILLIAM L. PRESSLY
GUY A. CALDWELL.
DONALD G. ANDERSON, Secretary.

ADDENDUM

At the invitation of the Council, the National Executive Committee of the Association of Internes and Medical Students has prepared the following reply to the Council's report, which the Council presents herewith as an addendum to that report.

"The Association of Internes and Medical Students hereby submits an abridged statement on the report of the Council. Because of space limitations imposed on us, we cannot deal as fully as we should like with all issues. (A full text of our statement may be secured from *The Interne*, 7 East Broadway, N. Y. C.)

"The work of the Council and its report was initiated by the Shurly resolution accepted by the House of Delegates at the June 1948 meeting. The text of that resolution follows:

"WHEREAS, The Association of Internes and Medical Students and the Association of International Medical Students are exhibiting communistic tendencies in their organization; and

"WHEREAS, The American medical profession is opposed universally to any organization which advocates the overthrow of the United States government by force and violence; and

"WHEREAS, These interne organizations and medical students favor strikes that are upsetting to proper medical education; and

"WHEREAS, It is said that these organizations have communistic affiliations; therefore be it

"RESOLVED, That our Council on Medical Education and Hospitals be requested to investigate these organizations as to facts, tendencies, affiliations, and objectives, and that a report of the findings of the Council be given to the House of Delegates at the earliest opportunity.

"The report of the Council should deal with the allegations posed for it in this resolution. This it does not do. When, where, and how has the A. I. M. S. 'exhibited communistic tendencies' . . . 'advocated overthrow of the United States government by force and violence' . . . 'favored strikes,' etc. Such documentations, the Council could not and did not make since no basis in fact exists for these assertions.

"When our national executive committee met with the Council on Feb. 8, 1950, we were assured that nothing subversive about A. I. M. S. had been determined in their investigation. This should be categorically stated in their report.

"After 18 months of investigation, having found nothing subversive in our program or objectives, the Council has announced its conclusion that the A. I. M. S. is 'left-wing.' This vague catch-all phrase is based on an array of supposed facts which in reality are irrelevancies and hearsay. Let us examine the facts.

"The AMA informant on the 1948 International Clinical Congress spent, by his own admission, one afternoon at the three-week session. His overt bias disqualifies the creditability of his remarks. He sees the mixed racial character and diverse national origins represented in our group as something sinister. We point to it with pride and think it truly representative in the best sense. As a matter of record, half the delegation were not A. I. M. S. members. The printed proceedings of the Congress show that the A. I. M. S. has constantly given a balanced picture of American medicine and extolled those areas in which it excels.

"The A. I. M. S. is accused of being left-wing because in 1938 an obscure Communist publication urged medical students to join our predecessor, the Association of Medical Students. We can obviously assume no responsibility for statements published by others. Should we be condemned for our program against discrimination because Communists are said to endorse these principles also?

"An objective examination of the A. I. M. S. requires that we be adjudged on the basis of our policies and activity. What is being judged in the report are some of the organizations with which we have been, or are said to have been, associated. The citations quoted deal wholly with other organizations. To ascribe to the A. I. M. S. the alleged character of other organizations that it was said to be associated with is guilt by association. It is meaningless unless the nature of the association and the meaning in terms of program is described.

"Professor Kirtley F. Mather of Harvard University, geologist and president of the American Association for the Advancement of Science, said recently: 'The concept of guilt by association . . . is one of the most dangerous antagonists of democracy abroad in the land today . . .' Similar conclusions were drawn in a recent special report of the AAAS.

"Regarding A. I. M. S. relationship with the International Union of Students, the following is pertinent. The A. I. M. S. recognized from the beginning that the program of the IUS was broader than its own and restricted its participation to activities consonant with its own constitution. A nonpolitical service program of student travel and exchange and medical relief was developed.

"In recent times the heightening of international tension made difficult even such limited participation in the IUS. The 1949 convention adopted a resolution which disaffiliated the A. I. M. S. from the IUS.

"The statement that the A. I. M. S. conventions and journals have had speakers and writers who are members of 'Communist-front groups,' 'officers of the AMA, and prominent leaders in medicine and medical education' cannot be dealt with here fully, for the crux of the matter, that is, the content of the remarks, is omitted from the report. Speakers and writers have been invited as recognized authorities in their fields, and it is not our principle to inquire into their political beliefs. Certainly A. I. M. S. acquires no political taint in any direction by virtue of having such professional leaders from the AMA and elsewhere contribute to its educational program in their fields of competence.

"Nothing is brought forward in the report that in any way documents the statement that we are 'left-wing.' The A. I. M. S. is not a political organization. Does the Council consider the advocacy of improved medical education and interne training, adequate remuneration for house officers, federal aid to medical education, anti-discrimination, international travel and student exchange, and a national program for adequate medical care as left-wing? If it does, it should so state its position and not hedge it about with catch-all phraseology and unsupportable allegations.

"We certainly cannot concur with one member of the Council that the Johns Hopkins chapter was 'leftist' because of its long association with Dr. Henry Sigerist. Does Johns Hopkins, on the faculty of which Dr. Sigerist served with distinction, also become thus labeled by this form of reasoning?

"The publication of the AMA report will bring discredit to the organized medical profession, to which people look for leadership as a respected scientific body. Within the profession, the report will have a disquieting effect. Already some leading medical figures have expressed their concern, and the Council has the letters from which we quote.

"Dr. R. G. Bloch, University of Chicago: 'The Council's report implies guilt by association to which I cannot subscribe. In this school I know the men (in A. I. M. S.) as having high ideals.'

"Dr. J. S. Lockwood, Columbia University: 'This report presents another instance of a very disturbing present-day tendency to label as "communist-front" any group which sets out to inquire into the validity of established economic and social practices. Even in the confidential draft of the report the Council fails to supports its conclusions and recommendations with any factual evidence.'

"Drs. H. E. Meleney, E. M. Bluestone, W. M. Cobb, M. B. Visscher, W. F. Hewitt, L. J. Goldwater, and others have also expressed their concern over this report in terms similar to the above.

"We have always enjoyed the respect and friendship of leading figures in medicine. We have grown and matured as an organization for 15 years, and we are proud of our program and our accomplishments. We will continue to serve the younger members of the profession to help them grow into mature and responsible members of the profession and society."

THE NATIONAL EXECUTIVE COMMITTEE
ASSOCIATION OF INTERNES AND MEDICAL STUDENTS

Supplementary Report of the Council on Medical Education and Hospitals

To the House of Delegates of the American Medical Association:

The Council on Medical Education and Hospitals requests the approval of the House of Delegates for the following revisions of its "Essentials of Approved Residencies and Fellowships":

1. Introduction and General Requirements (pages 5 through Section 10 on page 11).

2. Special Requirements. A revision of subsection 25 on Surgery (page 31) and the addition of a subsection presenting the special requirements for residencies in preventive medicine and public health.

The proposed revisions are appended.

Respectfully submitted,

H. G. WEISKOTTEN, Chairman
RUSSELL L. HADEN
WILLIAM S. MIDDLETON
VICTOR JOHNSON
W. L. PRESSLY
HARVEY B. STONE
GUY A. CALDWELL
DONALD G. ANDERSON, Secretary

ESSENTIALS OF APPROVED RESIDENCIES AND FELLOWSHIPS

INTRODUCTION

Residencies and fellowships in the clinical divisions of medicine, surgery and other special fields provide advanced training in preparation for the practice of a specialty. Approval for residency training is limited to programs conducted in general or special hospitals. A fellowship is a form of graduate training, similar in nature to a residency, but usually offering greater opportunity for teaching, study in the basic sciences and research. It is usually considered a medical school, rather than a hospital appointment.

It is desirable, for the purpose of clarification, to differentiate between two terms commonly used in referring to higher medical education. Graduate training, as used in these Essentials refers to the various recognized plans of training which lead to qualification in a specialty. Postgraduate training, in contrast, refers to formally organized shorter courses, offered by medical schools, hospitals, clinics and medical organizations which provide advanced instruction in a limited field, primarily

designed for physicians in practice. Residencies and fellowships in the following branches of medicine are approved by the Council.

1. Medical Services.
   1.1 Dermatology and Syphilology *
   1.2 Internal Medicine *
   1.21 Allergy [1]
   1.22 Cardiovascular Diseases [2]
   1.23 Gastroenterology [2]
   1.24 Pulmonary Diseases [2]
   1.3 Neurology *
   1.4 Pediatrics *
   1.41 Allergy [1]
   1.42 Contagious Diseases
   1.5 Physical Medicine *
   1.6 Psychiatry *
2. Surgical Services
   2.1 Anesthesiology *
   2.2 General Surgery *
   2.3 Neurological Surgery *
   2.4 Obstetrics and Gynecology
   2.5 Ophthalmology *
   2.6 Orthopedic Surgery *
   2.7 Otolaryngology *
   2.8 Plastic Surgery *
   2.9 Proctology *
   2.10 Thoracic Surgery [3]
   2.11 Urology *
3. Laboratory Services
   3.1 Pathology *
   3.2 Radiology *
4. Special
   4.1 General Practice
   4.2 Malignant Diseases
   4.3 Occupational Medicine
   4.4 Preventive Medicine and Public Health.*

It is recognized that while some hospitals may be unable to meet the educational standards for graduate training in the specialties, as set forth in the Essentials, they may be able to offer experience of value to young physicians. These hospitals may well consider the appointment of paid house officers to assist in conducting the professional work of the hospital. Experience of this type does not ordinarily carry credit towards certification in the specialties or towards qualification for membership in special societies.

I. GENERAL REQUIREMENTS.

As a prerequisite to approval for residency training, a hospital must have been previously registered by the American Medical Association and approved by the American College of Surgeons under its standardization program.

This implies that the hospital must be properly organized, staffed and equipped and that its activities are conducted primarily for the welfare of the patient. While the educational program is supplementary to the primary purpose of the hospital, i. e., the care and management of patients, it is directly related to this function in that it serves to improve the quality of medical care offered.

Size and Type.—The size of the institution is not a primary consideration. The clinical material however, should be of sufficient scope and diversity to enable residents to observe the principal manifestations of the disease conditions, in the understanding and management of which they are acquiring additional experience. The number of service or ward beds, rather than the total bed capacity is of significance in this connection. In hospitals admitting principally private patients, the availability of these patients for teaching purposes is an essential consideration.

Official approval is extended to general and special hospitals offering acceptable programs in the various specialty fields. Programs conducted in hospitals associated with medical schools are ordinarily of three or more years in duration and offer special facilities for progressively graded, comprehensive training. A number of hospitals not directly affiliated with medical schools, have organized programs of graduate training which comply with all the requirements of the Essentials of Approved Residencies and Fellowships. Some of these hospitals, utilizing their own facilities to the fullest extent, have developed acceptable, fully approved programs. Other hospitals of this type, have supplemented their educational program through affiliation with medical and graduate schools, or with other hospitals which are able to augment the residents' training in those phases which might otherwise be considered deficient. The rotation of residents from an approved hospital to an affiliated institution which is able to provide experience lacking to the parent hospital is often desirable, when properly supervised.

Plant and Equipment.—The physical plant should be adequately constructed and planned, to assure proper medical and hospital care as well as safety and comfort for the patient. Equipment, appliances and apparatus such as are commonly employed in the practice of modern, scientific medicine, should be available. In those departments in which residencies are being offered, there should be additional space and equipment available for the use of the resident staff in additions to that ordinarily required by the service.

1. Staff: There should be an organized staff of ethical licensed physicians holding the degree of doctor of medicine from medical schools acceptable to the Council on Medical Education and Hospitals of the American Medical Association. A well organized and well qualified staff is one of the most important requisites in a hospital assuming responsibility for residency training. It may well be the determining factor in the development and approval of a graduate training program. There should be an educational committee of the staff which is responsible for the organization of the residency program, for the supervision and direction of the residency program and for correlating the activities of the resident staff in various departments of the hospital. The committee might well include the pathologist, the radiologist and other department heads who, because of the inherent relationship of the departmental work will be called on to assist in the training program.

The particular specialties in which residents are being trained should be represented in the staff by well qualified, experienced and proficient physicians, whether or not they hold membership in special societies and colleges or are certified in their specialty. Adequate organization of the medical staff presupposes careful selection of the head of the department and of the chiefs of the various services. In addition to their qualifications in the specialty, they should have high professional standing, and possess the attributes of the teacher. Being responsible for the training of residents, they should be chosen on the basis of ability, aptitude and interest.

Members of the attending staff should be assigned by the department head to specific responsibility as far as the work of the services is concerned. The service of each attending should include an adequate number of patients and extend over a sufficient period of time to elicit his full interest and attention while on service. On the other hand the service should not be so large as to be a burden to the attending staff and thus result in reduced attention to the education program. In all instances, it is imperative that the head of the department be available to assume full responsibility for supervision of the work of the department.

The staff must hold an adequate number of regularly scheduled clinical pathological conferences and other staff meetings at which the histories, clinical observations, laboratory studies and pathology of selected cases are reviewed. Scientific meetings at which papers are presented by members of the staff or guest speakers, are considered commendable but do not serve to meet the requirement of these scheduled conferences. In addition to meetings of the staff as a whole, it is expected that departmental conferences will be conducted in which residents should take an active part, so that the quality of the service given by that department to its patients may be recurringly evaluated. Other educational activities requiring the full support and cooperation of the staff are described under Training Program, and Applied Basic Sciences, (Sections I-8, I-10) and under Special Requirements (Section II).

2. Department of Radiology: The department of radiology should be under the direction of a qualified radiologist proficient in the various functions of his specialty. He must cooperate fully in the training of all hospital residents and supervise any direct contact which they may have with the work of the department. This supervision, if not full time, necessitates at least daily visits to the hospital, during which the radiologist is expected to be available for consultation with the resident staff in addition to supervising the work of the department.

The department should contain modern roentgenographic, roentgenoscopic and where indicated, therapeutic equipment and

* Indicates specialties in which certifying boards have been established.

1. Candidates may be certified by either the American Board of Internal Medicine or by the American Board of Pediatrics; applicants must fulfil the certification requirements of the Board concerned before they are eligible for examination in the subspecialty.

2. Candidates may be certified by the American Board of Internal Medicine; applicants must fulfil the Boards certification requirements before they are eligible for examination in the subspecialty.

3. Candidates must fulfil the certification requirements of the American Board of Surgery before they are eligible for examination by the Board of Thoracic Surgery.

radium adequate for the needs of the hospital. The departments should be properly organized to carry out its functions in an effective manner. It should keep adequately indexed records, including cross indices, to assure efficient operation and to facilitate investigative work. These requirements are essential in institutions offering residency or fellowship programs in any field. (A description of the special requirements for a residency in radiology is given in Section II-24.)

3. Department of Pathology: The department of pathology should be under the direction of a qualified pathologist who shall be prepared to cooperate fully in the training of all hospital residents and supervise any direct contact they may have with the laboratory. There should be continuous supervision of the laboratory by the pathologist who, preferably, should have no responsibilities outside the hospital that would prevent his being available for consultation and for guidance of the residents work.

The department should provide adequate space and equipment for the residents use in addition to that required for the proper functioning of the service. Apparatus, reagents and materials necessary for the operation of a modern clinical and pathological laboratory should be available. The department should be organized to provide a high quality of service for the clinical departments and to permit of its active participation in the educational program. An efficient system of records including cross indices should be maintained, to assure proper functioning of the laboratory and to facilitate investigative work. This department should assume much of the responsibility for the clinical pathological conferences and other educational activities of the staff.

The facilities of the autopsy room should be ample enough to permit participation by the resident staff. Thoroughness in postmortem examination should be emphasized. Complete necropsy records should be kept on file and each should contain a summary of the clinical record and detailed description of both the gross and the microscopic observations. Residents of all departments should attend postmortem examinations unless other important duties prevent. They may, with value, participate in the performance of necropsies, including the preparation of the protocol, and in the review of microscopic findings on materials derived from their own and other services.

It is expected that hospitals assuming responsibility for resident training will maintain a high autopsy rate. It is felt that the autopsy rate is a reliable gauge of the staff's interest in scientific advancement. (A description of the special requirements for an approved residency in pathology is given in Section II-17.)

4. Medical Library: Institutions offering approved residencies and fellowships should maintain an adequate medical library containing carefully selected, authoritative medical textbooks and monographs of the latest edition, the Quarterly Cumulative Index Medicus, and current medical journals in the various branches of medicine and surgery in which training is being conducted. For the guidance of the hospital in developing its library, the Council has prepared a list of recommended texts and journals, which is available on request.

The medical library should be in the charge of a qualified person who should act not only as custodian of its contents, but also arrange for the necessary cataloging and indexing which will facilitate reference work by the resident and attending staff. A permanent committee of the medical staff should be responsible for the organization and development of this department.

The medical library should be readily accessible to the resident staff, located if practicable, within the main building of the hospital. Its size may depend to some extent on the availability and the use which can be made of other library facilities in nearby institutions. Every hospital conducting graduate training must have, however, a basic collection of medical texts and journals available for ready reference, whether or not accessory facilities are available.

5. Medical Records Department: The record department should be adequately supervised, preferably by a qualified medical record librarian. An efficient record system should be maintained, including alphabetic and diagnostic patient indexes. Operative reports, roentgenological and pathological records should be properly classified, permitting of ready reference. The employment of the Standard Nomenclature of Disease and Operations is recommended for all medical records.

Clinical records must be complete and include the patient's chief complaint, case history, physical examination on admission, a provisional diagnosis, record of laboratory examinations, therapy employed, descriptions of operations if performed, adequate progress notes, consultation remarks, a final diagnosis, condition on discharge, necropsy observations in case of death if postmortem examination is performed, and an appropriate summary. The records should show by signatures or at least initials, the names of all physicians writing the record in whole or part, as well as the names of the staff members by whom the records are verified. Each completed record should be verified by a responsible staff member.

In a hospital assuming responsibility for graduate training, it is expected that the clinical records be sufficiently comprehensive to permit of their use for teaching purposes. While responsibility for the preparation of parts of the record, such as the admission work-up, may be delegated to the intern or resident assigned to the case, the ultimate responsibility for the completed record lies with the staff member in charge.

There should be a records committee of the staff which will meet periodically with the record librarian to review the clinical charts and report their findings. This committee may be empowered to make recommendations concerning the disciplinary measures necessary to assure the maintenance of adequate clinical records on a current basis. Satisfactory records can be maintained only through the continuous and cooperative efforts of the staff, the medical records department and the hospital administration.

6. Eligibility of Applicants: Candidates for appointment to an approved service should be graduates of medical schools approved by the Council on Medical Education and Hospitals, who have served an internship of at least one year in an approved hospital. It is further recommended that candidates seeking residencies or fellowships in the surgical specialties should first complete at least one year of general surgical training beyond the internship, before beginning training in the specialty itself.

The development of a satisfactory training program requires, first of all, a careful selection of applicants for appointment to the resident staff. The hospital administration and the medical staff, through the appropriate committee for review of credentials, should closely scrutinize the qualifications of each candidate, and give consideration to such factors as character, preliminary education, medical education, and intern training. A primary qualification in considering a candidate for acceptance should be evidence of excellent character.

Hospitals may wish to consider the appointment of candidates from foreign countries. A preliminary list of foreign schools considered as offering training comparable to that of medical schools in this country has been published by the Council. Since this list is only a preliminary one, the position of the Council with respect to foreign medical schools not on this list is that it neither approves nor disapproves these schools but must leave to each hospital the decision as to whether graduates of these schools have the training and qualifications that the hospital deems essential in those whom it appoints as residents.

7. Training program: Duration. Graduate training in the various branches of medicine should be of sufficient duration and education content to enable the resident on completion of his training, to begin the practice of his specialty in a scientific manner. With the exception of a few specialties, e. g. pediatrics, a fully organized, comprehensive program should include three or more years of formal residency training. Not all hospitals however, are able to develop programs of this type. A given approved residency may not provide complete training in a specialty field but if properly organized can make a substantial contribution to the resident's advanced training. It is desirable that hospitals, which cannot, for one reason or another, develop a fully approved program, integrate their training plan with that of other approved hospitals to assure the resident of the opportunity of completing his training, during which he is given progressively graded responsibility.

Supervision. The educational effectiveness of a residency or fellowship depends largely on the quality of its supervision and organization. The responsibility for these important functions lies with the department heads and a representative committee of the medical staff. Heads of departments should be responsible for their own services, the committee assuming a larger role in directing and correlating the various aspects of the educational program. The department head should have qualifications and breadth of experience which will enable him to carry out an effective training program. Those members of the attending staff who assist in supervising the residents work should also have had acceptable training in the specialty and should demonstrate an interest and ability in teaching. In some hospitals, where the number of men on the staff who have had advanced training in the specialty is limited, it may be desirable to assign responsibility for the supervision of the training program to physicians recognized in their field, on a consulting basis. In such instance, it is expected that the consultant assuming this responsibility, will devote sufficient time to the residency program to assure the close and continuing supervision of all phases of the resident's work.

Resident Responsibility. Aside from the daily contact with patients and the attending staff, and participation in the organized educational program, the assumption of responsibility is a most important aspect of residency and fellowship training. Accordingly, as ability is demonstrated, an increasing amount of reliance should be placed in the judgment of residents in diagnosis and in treatment, as well as in the teaching of interns and medical students. In surgery and the surgical specialties, the resident should be given ample opportunity to perform major surgical procedures under supervision, particularly in the later stages of his training, in order that he may acquire surgical skill and judgment.

Methods of Instruction. It is important that methods of instruction be employed in the training program, which are best suited to the special field. Emphasis should be placed on personal instruction at the bedside, in the operating room and in the delivery room, on related laboratory studies, teaching rounds, departmental conferences or seminars, clinicopathologic conferences, demonstrations and lectures.

Clinicopathologic conferences should be held preferably each week for the general staff, or, in larger hospitals it may be advisable to arrange separate meetings for each of several departments in order that all of the available material may be presented properly. The program should include the demonstration of pathologic material from the operating room and from autopsies. The amount of material to be reviewed will usually require a weekly meeting and permit the more extensive use of the fresh and frozen specimens which are preferred to fixed specimens for demonstration and study. Details of the program and its manner of presentation may vary but the following procedure represents the plan followed in many hospitals:

1. Presentation of abstract reports of selected cases.
2. Demonstration of gross and microscopic pathology.
3. Correlation of clinical and pathologic findings.
4. Comparison of reports with the literature.
5. Summary of findings and conclusions.

The success of the clinicopathologic conference lies chiefly in the ability of the pathologist to teach and to interpret pathologic lesions in terms of clinical manifestations of the disease.

A record of all conferences of the medical staff should be kept by every hospital for both current and future reference.

Journal Club. Familiarity with and critical analysis of pertinent medical literature is an important feature of medical training. The journal club or seminar is an excellent means of stimulating interest in scientific literature. In smaller hospitals, it may be conducted as a joint activity of several departments. Particularly in larger hospitals where the number of residents justify, separate meetings of this type for each service is considered advantageous. There are several methods of conducting a succesful journal club. Each member of the resident staff can be requested to make a comprehensive review of the important articles contained in one or more current medical journals, reporting regularly at these meetings. The plan may be supplemented by assignment of a specific subject or disease entity to one or more of the participants for a complete review of the related past and current literature. Other plans for stimulating study of this nature may be arranged in conjunction with medical staff conferences, or through clinical research pertaining to problems under discussion, or in connection with patients under treatment in the hospital. A successful journal club will prove stimulating not alone to the resident staff, but to the attending staff as well.

Resident Assignments. Hospital Service. The resident staff should be assigned to a sufficient number and variety of hospital patients to assure a broad training and experience. However, hospital duties should not be so extensive as to prevent giving ample time for other important phases of the training program. The completeness of the preliminary study of all patients, necessary in arriving at a correct diagnosis, should be emphasized. The variety of the pathological conditions encountered are also of primary importance.

Outpatient department. The importance of the outpatient department and its role in the training of the resident staff should be emphasized. Here there is opportunity for acquiring further knowledge and experience, particularly in differential diagnosis and follow-up observation. Study of end results in patients operated on is of primary importance. The resident staff should have a definite assignment to the scheduled clinics. They should be required either to attend all clinics of the hospital service to which they are assigned or, to devote full or part time to a series of clinics during a certain period of their training. The former plan is considered more satisfactory because it provides a longer contact with the same patients, including the periods before and after hospitalization. Other activities should not be allowed to conflict with the work of the resident staff in the outpatient department.

The major responsibilities of carrying on outpatient department work should not be given over entirely to the resident staff. The educational value of work in the outpatient department is largely dependent upon the amount of interest displayed by heads of departments and high-ranking members of the attending staff. In any acceptable plan of graduate training, they should be in regular attendance at the diagnostic and follow-up clinics for supervision and instruction of the assigned personnel working under their direction.

Emergency service. All hospitals are called on to care for a certain number of patients who present themselves for treatment in case of accidents or other emergencies. The service may vary from a few patients seen in emergency in the outpatient department to the extensive and well organized accident wards which care for traumatic cases in connection with the ambulance services of large hospitals. Regardless of the size of the service, advantage should be taken of this opportunity for the resident staff to obtain experience in the care of these types of cases. Being available in the hospital at all times, they may be called on to take the initiative in making differential diagnosis, rendering first aid treatment, and assuming the major responsibility for the immediate care of a variety of traumatic conditions. They must also decide when patients should be admitted to the hospital. Under proper supervision of the attending staff, assignment to the emergency service is a valuable experience for the residents.

Operating room assignment. In surgery and the surgical specialties, work in the operating room constitutes an important part of the residents' responsibility. During the course of his training, the resident should be given sufficient operating responsibility to acquire surgical skill and judgment. This experience should be progressively graded to the end that, on completion of his training, the resident is able to assume individual responsibility for major surgical procedures. A more detailed discussion of this phase of the residents' training is found under the appropriate sections of the specialties concerned.

Teaching and investigation. Residents and fellows should be assigned to teaching responsibilities as their experience increases. The stimulating teacher-student relationship should be part of the resident's experience, not only as a student of the attending physician, but as a teacher of interns and nurses, and in hospitals affiliated with medical schools, as junior and senior medical students.

When the facilities of an institution permit, and when the residents are competent and interested, they should be encouraged to engage in investigative work. Such investigation may take the form of research in the hospital laboratories or wards, comprehensive summaries of medical literature, or the preparation of statistical analyses based on clinical case records. The interests of the various members of the resident staff should be carefully considered when arranging assignments to this activity, inasmuch as ability and desire to do this type of work differ widely. Intelligent direction and supervision should be provided in selecting the project to be undertaken and in its development. It is realized that only an occasional individual will make contributions or discoveries of lasting value to the medical profession. However, those who undertake and pursue a research problem receive a stimulus which can be obtained in no other way. An understanding of the methods and problems involved in research leads to a better interpretation of the great mass of current scientific literature which must be constantly reviewed by the progressive physician or surgeon.

When feasible each member of the resident staff, either individually or in collaboration with other members of the department, should be encouraged to prepare a formal paper suitable for publication.

It is not essential, or even desirable, that all hospital residencies should adopt exactly the same program, or that they should offer a rigidly uniform sequence of exprience. It is essential, however, that all hospitals participating in graduate training should be able to meet the fundamental essential requirements for an approved program and either alone or in collaboration should attain comparable results in the quality of training and amount of experience obtained.

8. Collaborating and Affiliating Programs: Some hospitals that have excellent facilities and clinical material for the greater part of an approved training program may be deficient in some particular phase of the work that can be well provided in another hospital of graduate training calibre. In such instances the hospital which has the greater part of the required clinical material and facilities may become the parent institution and collaborate with the second institution to provide a well rounded and complete program of training in a given specialty.

In other instances, especially on university connected services, the chief of an approved service may elect to augment the opportunity afforded his trainees for clinical experience by rotating them to a smaller affiliated institution for short periods of service. Such short term services need not be independently approved. However, their contribution to the resident's training is taken into consideration and recognized when evaluating the over-all program of which it is a part. The departmental staff of the parent institution sponsoring the program *must* assume responsibility for the resident's training during the period he is assigned to the affiliating service, as well as when he is serving at the parent hospital. *Under arrangements of this nature, it is not intended that the resident be assigned to affiliating services without supervision even though he may obtain extensive experience in this way.* The resident's work must be properly supervised at all stages of his training. In general, affiliated services should not constitute more than a third of the training period. Hospitals which can offer satisfactory training for more than this period can probably develop acceptable programs of their own.

9. Basic Science Training: Competence in any of the various specialties in clinical medicine requires a knowledge of the basic medical sciences as related to that specialty. Therefore, acceptable residency and fellowship programs must provide for training in the applied basic medical sciences. Such training does not necessitate formal course work, specific assigned laboratory exercises, or affiliation of the residency hospital with a medical school; it should be distinctly of an applied nature, closely integrated with the clinical experience of the resident.

Any resident seeking competence or certification in a specialty must be able to apply at least the following basic sciences to his special field of medicine: anatomy, bacteriology, biochemistry, pathology, pharmacology and physiology.

Undergraduate education in an approved medical school provides a background for an understanding of these sciences. In a graduate training program, therefore, training in basic sciences should stress reviews of their clinical application and not constitute primarily a review of undergraduate work.

Anatomy. Anatomy at the residency level may well be taught, reviewed or learned from the living body, on the operating or examining table or from the fresh tissues in the pathological laboratory. More important in anatomical instruction of residents than an available anatomical laboratory is the attitude and enthusiasm of the hospital staff in availing themselves of opportunities to teach and learn applied gross and microscopic anatomy from clinical and pathological material. Opportunities for anatomical dissection, when available, may be utilized for supplementary training.

Bacteriology. Hospital laboratories should have adequate facilities and personnel qualified to carry out diagnostic bacteriological studies, and those in the allied fields of parasitology, mycology, immunology, and serology. The resident staff should make use of the educational opportunity provided through the study of bacteriological material from the hospital services, correlating the laboratory study with its clinical application. Members of the resident staff who exhibit a particular interest in this field might well be assigned to the department for additional investigative work.

Biochemistry. The hospital biochemistry laboratory should provide the resident with opportunities to broaden his knowledge of biochemistry as related to such clinical problems as he may encounter in his specialty; for example, water balance, acid-base equilibrium, glucose tolerance, and blood or urine levels of significant metabolic, nutritional or therapeutic elements. Such applied basic science work in biochemistry is far more valuable than a formal review course in the field.

Pathology. In a well conducted department of pathology of an approved hospital there is opportunity for correlating much basic medical science material with problems of clinical medicine. Applied gross and microscopic anatomy may be effectively learned from necropsy and surgical specimens. The clinical-pathologic conference should and can be one of the most effective devices for correlation of the basic sciences with clinical medicine.

Pharmacology. Since the principles of pharmacology are involved in every therapeutic administration of chemical substances to patients, the wards of the residency hospitals provide very suitable opportunities for the resident to apply and expand the knowledge of pharmacology previously gained in medical school.

Physiology. Historically, one of the most fruitful fields of investigation into the normal functions of the body has been the study of abnormality of function to which the resident in clinical medicine is constantly exposed. Clinical medicine affords a rich field for the study of physiology and a potent stimulus to the resident to apply the basic principles of this science. Much of the equipment and special apparatus employed in clinical studies of the patient are likewise used in physiology, so that clinical studies provide ample opportunity and stimulation for the resident to supplement his knowledge of physiology with applications of the science to clinical problems. Encouragement and opportunity for an enlarged understanding of body function in health and disease should be part of the experience of the resident in any of the specialties in the course of his clinical work.

10. Miscellaneous: Contract for Appointment. It is considered desirable that the candidate for the residency and the hospital enter into a formal contract at the time of the appointment. Contracts for one year, renewable by mutual consent are preferable. Once made, the terms of the contract should be honorably fulfilled by both parties. The contract may be terminated following failure of one or the other parties to carry out its terms of the contract, or by mutual agreement. Violations of contract may be made a matter of record in the hospital's or individual's file.

Intern-resident relationships. Those hospitals training both residents and interns should recognize their obligation to both

groups and should plan their programs so that both interns and residents have opportunities for training and experience. The residents should participate in the teaching of the interns and in the supervision of their activities. Residents should not, however, act so as to diminish the contact of the interns with the attending men or assume the supervisory or disciplinary functions of the staff.

PERSONAL RECORD

1. It is considered desirable that a personal record of the resident be maintained by the department responsible for his training. This should include a record of his assignments, results of examinations, personal evaluation by attending staff members who intimately supervised his work, and such detailed information as may be necessary in rating the resident's total accomplishment at the end of his training. The close personal contacts which exists between department heads and the resident staff is usually sufficient of itself to make possible an accurate evaluation of the resident's judgment and professional progress. All records relating to the resident's work in the hospitals should be preserved and should be made available to examining boards and other responsible agencies if requested.

SURGERY

(The general and specific requirements for residencies in surgery as set forth in these Essentials have been adopted jointly by the Council on Medical Education and Hospitals of the American Medical Association, the American Board of Surgery and the American College of Surgeons.)

1. *Duration of Training.*—Residencies and Fellowships in general surgery which are designed to meet the requirements of the Council on Medical Education and Hospitals, the American College of Surgeons, and the American Board of Surgery, should include, after one year of internship, either three or four years of progressive residency training. A program need not necessarily be confined to a single hospital. Collaborative programs can be developed where two hospitals of graduate training caliber have complementary clinical resources which can be combined to advantage in developing an acceptable program.

The American Board of Surgery recognizes two methods of qualification for its examination:

Group I: In addition to one year of internship or its equivalent, a candidate must have a minimum of four years of training in surgery in an institution or institutions acceptable to the Board. Three of these years must be spent in an approved residency or clinical fellowship. One year may be spent in a surgical specialty, or experimental surgery or research, or work of such a character that the relation of the basic sciences of anatomy, physiology, pathology, bacteriology, biophysics, and biochemistry to surgery is emphasized.

Group II: In addition to one year of internship or its equivalent, a candidate must have three years of residency training in an institution or institutions acceptable to the board, followed by two years of study or practice of surgery, during which time sufficient operative experience to meet the board's requirements must be obtained. The latter two years must be taken under the supervision of a surgeon certified by or acceptable to the board and carrying on his practice in hospitals approved as meeting the minimum hospital requirements of the American College of Surgeons.

The Board of Regents of the American College of Surgeons has taken action recommending graduate training programs of four years' duration for trainees who begin a surgical residency program July 1, 1950, and thereafter. However, until a sufficient number of four-year programs have been developed, approved three-year programs in general surgery will continue to be recognized.

Training in general surgery is recommended as a preliminary to graduate training in most special fields of surgery. For some surgical specialties, there is a definite amount of preliminary training in general surgery required. To meet such requirements, hospitals offering general surgery programs of less than three years, but of acceptable quality, may be approved and separately listed.

As stated in the general requirements, it is not essential, or even desirable, that all hospital residencies should adopt exactly the same program, or that they should offer a rigidly uniform sequence of experience. It is essential, however, that all hospitals participating in graduate training should be able to meet the fundamental essential requirements for an approved program and either alone or in collaboration should attain comparable results in the quality of training and of experience obtained.

II. *Scope of Training.*—Residencies in general surgery should offer a broad surgical training and should preferably include some experience in closely related special fields of surgery. Large hospitals, which have narrowly departmentalized services, can usually provide this experience by agreement between the chiefs of two services to exchange residents for a definite period of time, or by planning a rotation of assignment of residents to selected surgical specialty services. Urology, gynecology, and orthopedic surgery are the specialties most commonly included. However, other surgical specialties (except perhaps ophthalmology) may be considered in making the selection.

At least two years of the training program should be spent specifically in the Department of General Surgery. Assignments for experience in special fields of surgery must, therefore, be limited in number and the selection should be made for each hospital on the basis of including those specialty departments which can contribute most effectively to the training of the general surgeon.

III. *Application of Basic Medical Sciences in Surgical Training.*—The application of the basic medical sciences should be stressed in relation to the clinical work of the residents throughout the whole training program. Frequent departmental conferences for a detailed discussion of problem cases on the surgical service are important for this, as are also the clinicopathology conferences. The residents should study and discuss with the pathologist all tissues removed at operation, and likewise all autopsy material from patients on their respective services. It is desirable, and in most programs it is possible, to have the resident assigned for a period of service in the department in pathology.

Surgical anatomy should be stressed by the attending surgeons in discussing surgical cases with the residents, and also by the pathologist, as far as is feasible, in the performing of autopsies. In addition, opportunity for the residents to work out special anatomical problems by performing regional dissections should, if possible, be provided.

Research work offers an important opportunity for stressing the application of the basic sciences in clinical problems. Reasonable facilities for research work by the residents should be provided, together with stimulating guidance and supervision.

IV. *Surgical Staff.*—The surgical staff should be composed of surgeons who are highly qualified in both surgical skill and judgment. It should be organized and harmonious, with the designated head or chief of service responsible for the quality of work done in the department. The position of chief of service should not be rotated as an honorary appointment, but should be held by the surgeon best fitted for this responsibility. The members of the staff should have a real interest in teaching and in the welfare of the residents, and must be willing to give the time and effort required by the educational program.

V. *Clinical Material.*—The hospital must be able to provide an adequate number and variety of surgical patients. Arbitrary figures cannot reflect these considerations accurately. Under ordinary circumstances, however, a general hospital, to support a surgical residency, should have annual admissions to the surgical division numbering approximately 300 to 500.

For a surgical residency, the hospital should be able to provide an adequate number and variety of service cases. This is essential to give the progressive operative experience necessary for the residents of the third and fourth years. The residency program should be organized so that residents will hold positions of increasing responsibility for the care and management of patients with surgical conditions and have sufficient operative experience to acquire surgical skill and judgment

through the performance of surgical operations with a high degree of responsibility but under circumstances providing adequate opportunity for consultation and advice.

Valuable experience may be obtained from efficient outpatient services where they exist and by well developed follow-up services in all hospitals.

A hospital which limits its clientele to special types of cases may, if otherwise qualified, be approved as a collaborating hospital if its residency is an integral part of an approved comprehensive program.

(See also the general requirements for all residencies as given in Section I of these Essentials.)

PREVENTIVE MEDICINE AND PUBLIC HEALTH

Residencies in this field should include training in the principal divisions of preventive medicine and public health, such as administration, health education, epidemiology (control of infectious and degenerative disease), maternal health, infant and child health, accident prevention and sanitation. Approval for residency training in the specialty is ordinarily extended to training areas organized under a state plan, although recognition may be given to a local health department offering acceptable training in one or more of the major branches. An acceptable program should be for a period of one or more years duration; if the training is limited to a single field of public health, the length of the training period should be at least two years, one of which may be spent in residency training in an appropriate clinical specialty.

The health departments in which training is given should be well established and should serve an area large enough to offer comprehensive experience in the several aspects of community health. A program of sufficient scope and diversity is not likely to be provided in communities of less than 50,000 population.* The department should be efficiently organized on a basis which will assure the provision of public health services, of a superior quality as well as proper supervision of the resident's training. It should cooperate actively with other agencies, official and nonofficial, in the development and conduct of a communitywide health program.

The facilities of the health department, including office and laboratory space, should be adequate for the efficient functioning of the public health service. When the work of the resident involves considerable travel, adequate transportation should be provided. The department should maintain a basic collection of reference texts and periodicals in public health and associated fields, whether or not more complete library facilities are available outside the department.

An efficient system of records must be maintained. Since much of the resident's later responsibility is likely to be administrative in nature, it is essential that he has a thorough indoctrination in the preparation and maintenance of reports, registers and other required records.

Residency training, at the state and local level, should be under the direction of a qualified physician, trained in public health, who has demonstrated his ability to administer a comprehensive public health program. His professional qualifications should meet the standards required of the staff of hospitals approved for residency training in other specialties. His staff should include a sufficient number of well trained personnel to provide adequate health service to the community and assistance in the training program. A state department of health responsible for the organization and conduct of a training plan should make available consultative service in the several basic and special public health fields.

The period of field training should include planned observation of and active participation in the various public health programs operating within the community. It should include experience in the collection of vital statistics, control of communicable disease, promotion of child and adult health, regulation of the environment and education of the public with respect to personal and community health. Training in these several fields should be such as to provide familiarity with the planning, development and methods of operation of public health programs and the duties and techniques used by the members of the staffs of the responsible public health agencies.

Eligibility of Applicants.—In addition to the qualifications required for applicants in the other specialties, the applicant for appointment to an approved training area in Preventive Medicine and Public Health should have completed one academic year in an accredited school of public health, leading to a degree of Master of Public Health or have had equivalent advance training. In some cases, the year of residency may precede the year of formal academic training.

Board Requirements.—The American Board of Preventive Medicine and Public Health requires candidates for the certification examination to have completed an approved internship of one year, and at least six additional years of experience in Preventive Medicine or Public Health, one of which years shall have been devoted to graduate study leading to a degree of Master of Public Health or its equivalent in an approved college or university (or equivalent training and study satisfactory to the Board) and at least one year of supervised field experience in public health practice in an approved residency.

It is recognized that an individual may obtain suitable training in programs other than those of an official health department; among such are the Federal services, industry and certain voluntary agencies. The training of such persons will be adjudged on an individual basis.

The House recessed at 12:30 to reconvene at 1:30 p. m.

(To Be Continued)

* For a method of evaluating the scope and quality of a public health program, see "Health Practice Indexes" 1950 Edition and the "Evaluation Schedule," November 1947, published by the American Public Health Association, 1790 Broadway, New York 19.

Registration at the San Francisco Session

Registration by States—June 26 to June 30, 1950

Alabama	48	North Carolina	41
Arizona	108	North Dakota	19
Arkansas	28	Ohio	250
California	5,317	Oklahoma	74
Colorado	116	Oregon	199
Connecticut	33	Pennsylvania	229
Delaware	7	Rhode Island	9
D. of C.	123	South Carolina	23
Florida	53	South Dakota	16
Georgia	30	Tennessee	56
Idaho	47	Texas	301
Illinois	455	Utah	103
Indiana	110	Vermont	3
Iowa	74	Virginia	46
Kansas	56	Washington	270
Kentucky	45	West Virginia	19
Louisiana	65	Wisconsin	81
Maine	4	Wyoming	8
Maryland	78	Alaska	1
Massachusetts	108	Canada	44
Michigan	169	Cuba	4
Minnesota	154	Hawaii	24
Mississippi	18	Mexico	2
Missouri	164	Panama	2
Montana	34	Philippine Islands	23
Nebraska	81	Porto Rico	3
Nevada	47	Foreign	43
New Hampshire	8	Central & South America	8
New Jersey	98		
New Mexico	25	Total	10,119
New York	311		

Registration by Section—June 26 to June 30, 1950

SECTION	TOTAL
Internal Medicine	1,644
Surgery, General and Abdominal	1,285
Obstetrics and Gynecology	319
Ophthalmology	314
Laryngology, Otology and Rhinology	223
Pediatrics	339
Experimental Med. and Therapeutics	61
Pathology and Physiology	191
Nervous and Mental Diseases	438
Dermatology and Syphilology	247
Preventive & Industrial Med. & Pub. Health	263
Urology	198
Orthopedic Surgery	280
Gastro-Enterology and Proctology	169
Radiology	290
Anesthesiology	231
General Practice	2,059
Diseases of Chest	283
Miscellaneous Topics	35
Physical Medicine and Rehabilitation	31
No. Sec. or more than 1 Section	999
	10,119

WASHINGTON NEWS

New Selective Service Orders

The President's order putting Selective Service into effect makes important changes in the status of reserve officers, medical officers included. From now on the three services themselves have the authority to call up reserves, with or without their consent. Until the President's order they did not have this authority. However, every indication now is that no reserves will be called up against their wishes unless and until the manpower situation grows a great deal more critical.

The air force has issued a statement detailing the classes of enlisted men and officers urgently needed. Medical officers are included. The navy issued a statement, but made no mention of medical officers. A similar statement is forthcoming from the army, and expectations are that it will specify medical officers. These are merely appeals to reserves—officers and enlisted men—to volunteer for active duty. Incidentally, under navy policy all honorably discharged officers are considered members of the navy reserve. Army and air force officer veterans are not kept automatically on the reserve rolls but must have signed up by their own choice and their own overt action.

One high-ranking military medical officer gave this explanation of the situation: "More men are being brought into the services. It is obvious that all essential functions of the services will have to be increased. This certainly means the medical services." For the next few weeks the only question is whether medical reserve officers will volunteer in sufficient numbers to make mandatory calls unnecessary.

Senate Hearings on Reorganization Plan 27

A few days before the House vote on Reorganization Plan 27, the Senate, through its Expenditures Committee, began examining this proposal to make Federal Security Agency into a Department of Health, Education and Security. The Senate was faced with a rapidly approaching deadline; if the House failed to disapprove the plan, the Senate would have to reject it by the end of July or the new department would be created.

Representing the American Medical Association at the Senate hearings was Dr. Louis H. Bauer, chairman of the Board of Trustees. In opposition, he offered the same basic arguments he had used against the plan at House hearings in June. This time Dr. Bauer was able to cite the action taken by the House of Delegates the previous week. "Our House of Delegates," he said, "expressed its firm conviction that Reorganization Plan 27 will not promote the health of the people and will not effectuate the recommendations of American medicine toward that end.

"In the first place," Dr. Bauer told the Committee, "'Reorganization Plan 27' is a complete misnomer. The plan does not reorganize anything. It merely elevates to an executive status an existing agency of the federal government, with all of its inadequacies."

Dr. Bauer repeated A. M. A.'s principal arguments against the proposal, stressing that it (1) threatened still further to subject health activities to lay control, (2) would prepare the way for national health insurance and (3) would delay, if not prevent, the creation of an independent agency or department, under a doctor of medicine, to handle all health functions.

The committee heard a number of other witnesses argue both sides of the question. Also testifying against the plan were several of the Senators who sponsored the resolution of disapproval, Taft, Hendrickson, Knowland, Smith of New Jersey and Butler.

Senator Taft said he feared the "power and supervision" a secretary might exert over health and education functions. He also declared that even now, in FSA, these two functions are dominated by the welfare influence rather than medical and educational influence. Senator Hendrickson objected to the way plan 27 was presented, "clothed in the appealing wraps of the Hoover Commission," although in fact it does not carry out the commission recommendations. Like Taft, he feared that setting up this department would "mortgage the future possibility for a separate department of health." In two days of hearings, the committee listened to a score or more of witnesses, largely a repetition of testimony given before the House committee.

FSA Administrator Oscar Ewing said the "insistence of the several professions on separate departmental status" had blocked similar reorganization plans in the past and urged the committee to realize that "governmental structure must be set up to serve the citizen, not exalt the profession."

Taking him up on this argument, Senator Karl Mundt (Republican, South Dakota) wondered whether in the fields of health and education professional persons rather than politicians should be listened to.

The dispute over plan 27 finds educators and public health people well divided. After one witness told the House committee that his group backed the idea and intimated that most educators felt the same way, another important national association quickly offered its denial. This was the National Council of Chief State School Officers, whose spokesman declared, "The vast majority of the nation's educators are committed to an independent agency for education in the federal government." He then listed six associations, including the National Education Association, which in the past year have formally demanded an independent education agency. Similarly, public health officials and workers are of several minds on this issue. This was made plain after a witness who said he represented American Public Health Association testified for the plan. Members of the State and Territorial Health Officers Association were quick to announce that their association is on record as favoring a separate department of health, not a triple department. A few days later this association—a large and influential part of the A.P.H.A.—officially reaffirmed its policy.

New Trend in Attitude on Hospital Grants

Federal Security Agency officials report an encouraging trend in states' attitudes toward hospital grants under the Hill-Burton Act. They say that now more high priority areas (where need for hospitals is greatest) are applying for federal assistance and that comparatively applications are falling off in areas where the need is not so critical. This reverses the original trend, when a high percentage of grants were going to urban or high income centers. Less than a year ago FSA was disturbed by this trend, which resulted in hospital funds going to areas which could take care of almost all their own needs without federal help. Government officials say the shift can be attributed directly to last year's amendment to the act, which increased the maximum federal construction contribution from one third to two thirds. There may be a change in the attitude of states toward Hill-Burton funds. Now only six states are operating under the "variable scale," which allows poorer communities to take advantage of the full federal contribution. The others have chosen to operate on a flat, statewide scale, applicable to every community regardless of its income level. There are strong indications that next year a large group of states will switch over to the variable scale, thereby making more federal dollars available to low income communities. The advantage of the statewide scale, FSA officials say, is that it allows moderate or high income areas to receive higher U. S. grants than would be possible if these areas were judged on their individual needs.

Trade Practice in Optical Industry

Effective July 30, the country's wholesale optical industry will be governed by a new set of trade practice rules, worked out by the Federal Trade Commission and representatives of the industry. The agreement covers every field in which a company might attempt to exert unfair or monopolistic pressure, including price discrimination, "spindling" of orders, advertising, special services, deceptive use of corporate names and misrepresentation. One section requires that imported optical goods be clearly identified as such, and another prohibits sales below cost. The agreement, under the Robinson-Patman antidiscrimination act, was drawn up at the request of the industry and carries the force of law.

GOVERNMENT SERVICES

Navy

Gift of Memorial Hospital to Newfoundland

The 81st Congress authorized the Secretary of the Navy to construct and the President of the United States to present to the people of St. Lawrence, Newfoundland, a memorial hospital. This memorial would be a token of appreciation of the heroic services of the people of that mining village and of Lawn in Newfoundland in saving the lives of U. S. naval personnel on the two naval vessels, the *USS Pollux* and the *USS Truxton*, wrecked near St. Lawrence in 1942. The lives of few of these men would have been saved except for the prompt and tireless efforts of these people. The cost was not to exceed $375,000. Funds have not as yet been appropriated for the project. In April representatives of the U. S. Navy met with representatives of the government of Newfoundland to discuss the construction of the proposed hospital; preliminary plans will be made and Congress requested to appropriate the necessary funds for the construction of the hospital.

Tuberculosis Among Navy Employees

A decrease in the incidence of tuberculosis among Navy civilian employees is reported by the Surgeon General, as a result of the Navy Medical Department's continuing its chest roentgenogram program. Reports from naval activities in the United States and overseas show that of 213,442 civilian employees who were given roentgen examinations in 1949, 4 of every 1,000 employees had evidence of tuberculosis which required immediate treatment. In 1948 the incidence rate was 6 in every 1,000. During each of the two years, three of every 1,000 Navy employees were found to have evidence of other chest diseases, such as lung tumors and heart disease. Chest roentgenograms are made annually for all civilian employees, when they enter and when they leave naval employment.

Awards and Commendations

CAPT. LEO CROMWELL THYSON

The Secretary of the Navy presented the Navy Distinguished Service Award to Captain Leo Cromwell Thyson June 19. The citation read, in part, as follows:

For exceptionally meritorious and distinguished service to the government of the United States while a prisoner of war at the Japanese prison camps near Shanghai, China, from Feb. 1, 1942, to May 15, 1945; at Fengtai, China, from May 15 to June 19, 1945, and at Hakodate, Japan, from June 30 to Sept. 14, 1945. Handicapped by the lack of adequate supplies and equipment to combat the frequent plagues of malaria, dysentery and nutritional diseases, he succeeded, by his personal and indefatigable endeavors, in obtaining vitally needed medicines and in maintaining an exceptionally low rate of mortality among the prisoners. Heedless of the possible fatal effects of Japanese-made vaccines, he insisted on testing all serums on himself before administering them to others to determine the proper dosage for the internees. On one occasion, Captain Thyson became violently ill as a result of one of his experiments. Humiliated on several occasions and once beaten by Japanese guards for his efforts, he persevered in his attempts to obtain better food and living conditions for the prisoners and, by his pertinacity, succeeded in procuring the release of all seriously sick and aged prisoners from work details. Although suffering from disease and malnutrition himself, Captain Thyson, by his devotion to duty during the long period of incarceration, saved the lives of many of his fellow prisoners, thereby reflecting the highest credit on himself and the United States naval service.

Public Health Service

Health Mission to Greece

Dr. O. F. Hedley, of the Public Health Service, who is serving as chief of the Public Health Division of the ECA Mission to Greece, returned recently to the United States to confer about the Greek health program. Dr. Hedley reports that the health of the Greek people reached its highest postwar level in 1949. The three most important public health problems today are tuberculosis, lack of sanitation and a shortage of trained health workers, particularly nurses. The malaria control program in Greece is outstandingly successful. There were about 50,000 cases of malaria last year, compared with about 2,000,000 cases annually in prewar years. Before the war the Greek people consumed about $1,200,000 worth of quinine a year, more than one fifth of the entire world production. The expenditures for antimalarial drugs have been sharply reduced. The expenditures for DDT are about $300,000 per year.

Tuberculosis is the major health problem in Greece today. The United Nations International Children's Emergency Fund has tuberculin tested more than 800,000 children and has vaccinated more than 500,000 Greek children against tuberculosis. More than half a million persons have been given roentgen examinations through the Chest Institute, and over 1,000 beds for tuberculosis patients will be added to Greek hospitals under the Marshall Plan. A 200 bed sanitarium has been planned in cooperation with the Pan-Cretan Foundation. The current sanitation program is primarily for improving water supplies to help control typhoid and dysentery. Water supply projects have been begun in over 100 localities. More than 5,000 tons of pipe for the projects has been delivered to Greece.

One of the major problems is the shortage of trained personnel for public health work; there is no immediate solution, but funds have been pledged for expanding medical education and training for the health professions. Marshall Plan funds have provided equipment for the medical and dental school in Athens and the medical school in Salonika. Major repairs have been provided for the School of Hygiene in Athens. A number of professionally trained health workers are being sent to the United States and other countries for additional training and study.

The need for nurses is acute. An intensive training program during the last three years has increased the number of graduate nurses from 500 to over 800, but it will be many years before there will be enough graduate nurses to meet the need. Over 1,000 practical nurses have attended special training courses lasting six to eight weeks. The courses were taught by Greek graduate nurses under the supervision of Public Health Service nurse officers assigned to the Mission. A school of nursing is under construction in Salonika, and a dormitory has been added to the Red Cross School of Nursing in Athens. Legislation has been introduced to create a Nurses Corps in the Greek national army.

Some new hospitals have been built. The Greek War Relief Association, aided by ECA funds, has constructed additional facilities at Tripolis, Salonika and Pyrgos and at the Evangelismos Hospital in Athens. The ECA Health Division, cooperating with the Greek Ministry of Hygiene, is adding to the facilities of the Piraeus General Hospital, the Laikon and Hippocrateion hospitals in Athens, the Athens Mental Hospital and hospitals in Larissa, Makrokom and other localities. Marshall Plan funds have also been used to repair more than 50 hospitals. A medical supply warehouse, under construction at Athens, is expected to improve the distribution of medical supplies.

MEDICAL NEWS

(Physicians will confer a favor by sending for this department items of news of general interest: such as relate to society activities, new hospitals, education and public health. Programs should be received at least two weeks before the date of meeting.)

CONNECTICUT

Special Study of the Coxsackie Virus.—A grant of $242,388 has been made by the National Foundation for Infantile Paralysis to Yale University to continue research on poliomyelitis for the next five years. The project will be under the direction of Dr. John R. Paul, professor of preventive medicine at the school of medicine. The investigations will attempt to extend laboratory findings into areas where the disease occurs. Similar studies have been going on at Yale since 1938. The Yale investigators will include a special study of the Coxsackie, or "C," virus. This virus, only recently discovered, is different from the poliomyelitis virus, although it produces symptoms much like nonparalytic poliomyelitis. The Coxsackie virus, named after the town in New York where it was first isolated, presents an extra problem to the physician since its outbreaks occur during the same period of the year as poliomyelitis. There is difficulty in distinguishing clinically between the two diseases.

DELAWARE

Medical Auxiliary Scholarship.—The Women's Auxiliary to the Medical Society of Delaware has awarded its first three year scholarship to a school of nursing. The scholarship covers fees, books, instruments and uniforms and will be awarded annually to a graduate of a Delaware high school.

DISTRICT OF COLUMBIA

Personal.—Dr. Roy Hertz, chief, Endocrinology Section, National Cancer Institute, Bethesda, Md., delivered two lectures for the Ciba Foundation, British research organization, July 10 and 12, in London. He spoke on "Dietary Trace Factors Involved in Hormone-Induced Tissue Growth" and "Clinical Studies in the Use of Massive Steroid Hormone Therapy in Breast, Prostate and Cervical Cancer."

Antivivisectionists Buy Radio Time on Buses.—The District of Columbia Medical Society has made a protest to the transit company in Washington, D. C., against a "piped in" commerical announcement from the antivivisection society. The announcement, "Beware, beware . . . your pets may wind up in vivisectional laboratories to suffer untold agony. Beware." still goes on. The advertising agency handling the announcement says it has no intention of withdrawing it.

Dr. Forster to Head Department at Georgetown.—Dr. Francis M. Forster, Philadelphia, has been appointed professor of neurology and director of the department at Georgetown University School of Medicine. Dr. Forster is a graduate of the University of Cincinnati College of Medicine (1937). After internship at Good Samaritan Hospital in Cincinnati he served as house officer in neurology and neurosurgery at Boston City Hospital, and later as a fellow in psychiatry at Pennsylvania Hospital in Philadelphia. In 1939 he became assistant in neurology at the Harvard Medical School, Boston, a Rockefeller Foundation research fellow in physiology at the Yale University School of Medicine, New Haven, Conn., the following year and in 1941 an instructor in neurology at the Boston University School of Medicine. He was assistant professor for four years and since 1947 has been associate professor of neurology at Jefferson Medical College of Philadelphia, except for periods in which he held guest lectureships at the University of Minnesota and the University of Iowa. Dr. Forster was the secretary of the Section on Nervous and Mental Diseases of the American Medical Association in 1948 and is now chairman of the Survey Committee of the American Academy of Neurology.

ILLINOIS

Society News.—At a recent meeting the following members of the Illinois Psychiatric Society were elected to office: Drs. D. Louis Steinberg, Elgin, president; William H. Haines, Chicago, vice president, and Leo A. Kaplan, Chicago, secretary-treasurer.——The following physicians were recently elected officers of the Illinois Heart Association: Drs. Edward W. Cannady, East St. Louis, president; Dr. Frank Deneen, Bloomington, vice president, and Robert W. Elliott, Alton, secretary.

Care for Poliomyelitis Patients.—In the event of another epidemic year, Governor Stevenson's Polio Planning Committee has laid plans for speedy and thorough care for victims throughout the state. A survey is being conducted by the Illinois Hospital Association, at the request of the poliomyelitis committee, to determine what hospitals have the facilities, and are willing, to lend emergency aid. Poliomyelitis hospital facilities of three types are planned: statewide networks of diagnostic centers, isolation wards and convalescent hospitals. All three types will be designated in every area of the state so that physicians will be able to refer patients needing immediate care with dispatch. Groundwork has been laid for obtaining nurses in areas where possibly heavy concentrations of poliomyelitis might require more nurses than are available locally.

Chicago

Course in Cerebral Palsy.—An intensive clinical course in cerebral palsy will be given at Chicago's Cook County Graduate School of Medicine July 31 to August 12 by Dr. Meyer A. Perlstein. The course, which will include lectures and clinic demonstrations, is designed primarily for physicians working with children. The fee is $150, of which $25 is payable on registration. Communications should be addressed to the Cook County Graduate School of Medicine, 427 South Honore Street, Chicago 12.

Borden Undergraduate Award.—Dr. John M. Marshall Jr., an intern at the University of Illinois Research and Educational Hospitals, has been named the winner of the $500 Borden Undergraduate Research Award for 1950 by the University of Illinois College of Medicine. Dr. Marshall received the award for his investigation of the role of the enzyme, renin, in high blood pressure produced in animals by constriction of the arteries to the kidneys. The award is given by the Borden Company Foundation, Inc.

Dr. Bailey Receives Jacoby Award.—Dr. Percival Bailey, professor of neurology and neurologic surgery at the University of Illinois College of Medicine, has been named first recipient of the Jacoby Award, presented to him by the American Neurological Association at the recent meeting in Atlantic City. The newly instituted honor is conferred on the member voted to have made the most outstanding contribution in the field of neurology during the previous three years. Dr. Bailey received the award for his studies on the cerebral cortex and nervous pathways within the brain.

University Appointment.—Dr. Mark H. Lepper, Washington, D. C., has been appointed to the faculty of the University of Illinois College of Medicine as an associate professor in the department of preventive medicine. Dr. Lepper received his B.A. and M.D. degrees from George Washington University School of Medicine, Washington, D. C., where he served as a clinical instructor in medicine. He has done research in the treatment of infectious diseases, toxic reactions to drugs and inhibition of antigen-antibody reactions. Dr. Lepper served two years in the U. S. Army during the war.

IOWA

Memorial to Dr. Moore.—The elementary school building under construction in Des Moines has been renamed the Dr. Fred Moore School, in memory of the late Dr. Moore who was formerly director of the health department for the Des Moines City public schools.

Dr. Larson Heads Orthopedic Surgery Department.—Dr. Carroll B. Larson, Boston, has been appointed professor and head of orthopedic surgery in the State University of Iowa College of Medicine, Iowa City, to succeed Dr. Arthur J. Steindler, who retired Jan. 1, 1949. Dr. Larson, who is now attending orthopedic surgeon at Massachusetts General Hospital, Boston, will assume his duties about August 1. He was graduated from the Iowa college of medicine in 1933. After an internship and two year residency at Santa Clara County Hospital, San Jose, Calif., he began orthopedic training at Children's Hospital and Massachusetts General Hospital, Boston, remaining a staff member of that institution until the present time.

KENTUCKY

Division Director Appointed.—Dr. Harold M. Kelso of Knoxville, Tenn., will assume the directorship of the Division of County Health Work of the state department of health July 1, succeeding Dr. Tracy Jones, Louisville, who resigned June 1. Dr. Kelso is a graduate of the University of Tennessee College of Medicine, Memphis, and has done graduate work at Johns Hopkins University, Baltimore, where he was awarded a Master of Public Health degree in 1933. He has held public health positions in Madisonville, Nashville, Gallatin and Livingston, Tenn., and at Pulaski, Va.

State Society Opens McDowell Home.—The historic Danville home of Dr. Ephraim McDowell, in which the first ovariotomy was performed 140 years ago, was opened again to the public June 1. The opening of the home is a feature of the Kentucky Mid-Century Homecoming sponsored jointly by the Commonwealth of Kentucky and the Kentucky Chamber of Commerce. The McDowell House, which was dedicated as a state shrine in 1939, is now the property of the Kentucky State Medical Association. It has been redecorated and is being completely furnished with authentic antiques of the period 1790-1830 by the Woman's Auxiliary to the state medical association.

MAINE

Jackson Laboratory Record Enrolment.—Thirty college and university students have been selected competitively from applicants from all over the country for special research training this summer at the Roscoe B. Jackson Memorial Laboratory at Bar Harbor, Maine. This is the largest summer enrolment the laboratory has ever had and will fill to capacity the summer laboratory and living quarters built during the past two years.

State Medical Election.—The following are newly elected officers of Maine Medical Association: Drs. Foster C. Small, Belfast, president; C. Harold Jameson, Rockland, president-elect; Frederick R. Carter, South Portland, secretary-treasurer, and Mr. W. Mayo Payson, Portland, executive secretary. Dr. Martyn A. Vickers of Bangor was elected delegate to the American Medical Association to serve from Jan. 1, 1951 to Jan. 1, 1953.

MASSACHUSETTS

Graduation Gift Fund.—An anonymous donor has presented to the Massachusetts Medical Society $500 to establish a "Graduate Gift Fund," for the purpose of giving an annual prize to an outstanding student from each of the three medical schools in the commonwealth "who best exemplified those intangible qualities which serve to designate him as a good physician."

Personal.—A grant of $10,000 has been awarded to Dr. John G. Gibson, second research associate at Harvard Medical School, by the National Institutes of Health of the U. S. Public Health Service to continue his studies on fundamental problems of the preservation of blood, which he has conducted in collaboration with Dr. Edwin J. Cohn, Higgins University Professor of Harvard, and other associates.

MICHIGAN

Cerebral Palsy Clinics.—Dr. Meyer A. Perlstein, Chicago, conducted cerebral palsy clinics in Ypsilanti on July 10 and in Traverse City on July 11 and 12. He will hold cerebral palsy clinics in Marquette on September 13 and 14.

Dr. Top to Go to Minnesota.—Dr. Franklin H. Top, director of the Herman Kiefer Hospital, acting head and clinical professor of preventive medicine and public health at the Wayne University College of Medicine, Detroit, and lecturer in epidemiology at the School of Public Health, University of Michigan, will terminate these positions on September 1 to become professor of epidemiology in the school of public health and professor of pediatrics at the University of Minnesota Medical School, Minneapolis.

MINNESOTA

Maternal Mortality Study.—The Minnesota State Medical Association will conduct a statewide survey of maternal mortality for 1950 in cooperation with the state department of health. An obstetrician will make an investigation and an analysis of the findings by the Maternal Health Committee to determine the causes of death as soon as a maternal death is reported. The association urges all physicians and hospitals to cooperate by reporting maternal deaths promptly by mail or telephone to the Division of Maternal and Child Health of the state department, in addition to the usual report of the death certificate to the Division of Vital Statistics. The committee urges that an autopsy be made in each case. The maternal death rate in the state during 1949 was 7 per 10,000 live births.

MISSOURI

Postgraduate Course in Psychiatry.—The University of Washington School of Medicine, St. Louis, will present a five day postgraduate course in practical psychiatry July 24-28, especially for general practitioners. Lectures and clinics will be given on personality development, common psychopathology, types of psychoneuroses, the patient-physician relationship, principles of psychotherapy and special therapies. The tuition fee of $50, made payable to the University of Washington, should accompany registration application. Enrolment is limited to 24.

Dr. Schauffler Honored.—Doctors and nurses of Children's Mercy Hospital, Kansas City, on June 20 presented a plaque to Dr. Robert McEwen Schauffler, president emeritus of the medical staff. He was cited as the "first physician appointed to the medical staff of the Children's Mercy hospital in 1904, in appreciation of service as orthopedist, humanitarian, writer and man among men." The plaque was prepared by the trustees, directors and medical staff in honor of Dr. Schauffler's long service to this free hospital for crippled and ailing children.

MONTANA

Dr. Thompson to Head State Department.—Dr. G. D. Carlyle Thompson, Portland, Ore., will become executive head of the Montana State Board of Health August 1. Dr. Thompson received his medical degree at the University of Michigan Medical School, Ann Arbor (1928). He has been director of preventive medical services for Oregon since 1947.

NEW JERSEY

Society News.—The New Jersey Gastroenterological Society honored Dr. Hyman I. Goldstein, Camden, at a testimonial dinner in Asbury Park on June 11. Dr. Goldstein was one of the charter members of the society.

Endocrine Research Fellowship.—Another research fellowship in endocrinology has been established recently at Rutgers University by Schering Corporation, Bloomfield. The grant, valued at $2,300, is intended for the support of fundamental research by graduate students in the field of steroid hormones at the Bureau of Biological Research, an agency of the university, established in 1936 to facilitate cooperative research in the several fields of biology.

NEW MEXICO

State Medical Election.—Officers of the New Mexico Medical Society elected for 1950-1951 include Drs. Ira J. Marshall of Roswell, president; Leland S. Evans of Las Cruces, president-elect; Coy S. Stone, Hobbs, vice president, and Lucien G. Rice Jr., Albuquerque, secretary-treasurer.

NEW YORK

Rochester Academy of Medicine Awards.—The Rochester Academy of Medicine has made its 1950 awards for papers submitted as follows: Dr. Frederick J. Martin, Rochester, the Mead Johnson and Company Award of $100 for his paper "Glomerular Nephritis"; Dr. Howard T. Thompson, Rochester, the Paine Drug Award of $100 for his paper "The Clinical Prognosis in Testicular Tumors"; and Dr. Clement Brooke, the 1950 Monroe Pharmacy Award of $100 in memory of Dr. John Aikman, for a paper on "Boric Acid Poisoning." Mrs. Lillian Ballou, R.N., the Council of Rochester Regional Hospitals Nurses Award of $100 for her paper "An Integrated School Health Program."

New York City

Promotions at the Rockefeller Institute.—The Rockefeller Institute for Medical Research has announced the following promotions: Dr. Maclyn McCarty from associate member to member; Armin C. Braun, Ph.D., Rollin D. Hotchkiss, Ph.D., Keith R. Porter, Ph.D., and William Trager, Ph.D., from associate to associate members. Duncan A. MacInnes, Ph.D., and Dr. James B. Murphy, who have reached the age of retirement, have been made emeritus members of the institute.

Professor of Experimental Surgery.—Dr. L. Corsan Reid has been appointed professor of experimental surgery at New York University Post Graduate Medical School, a unit of the New York University-Bellevue Medical Center. Dr. Reid has served since 1946 as an associate professor of physiology at New York University College of Medicine. In the new post he will be concerned with research and teaching relating to fundamental considerations underlying surgical technics. He served in the U. S. Army from 1942 through 1946 and during World War I was in the Canadian Army, being active from 1915 through 1919. Dr. Reid was graduated from McGill University Faculty of Medicine in 1916.

Appoint Director of Outpatient Services.—The appointment of Dr. Elaine P. Ralli, who has been associated with Bellevue Hospital for more than 20 years, as director of outpatient services for the City of New York Department of Hospitals was announced June 24. Dr. Ralli took over the new post on July 1. The city administration in the last few years has appropriated more than three million dollars to the Department of Hospitals for expanding its outpatient services.

Dr. Ralli was graduated from the New York University College of Medicine in 1925. She is a specialist certified by the American Board of Internal Medicine and associate professor of medicine, New York University College of Medicine, since 1939. Since 1928 Dr. Ralli has been in charge of the Metabolism Clinics of the Third Medical Division at Bellevue Hospital.

NORTH CAROLINA

Symposium at Wrightsville Beach.—The New Hanover County Medical Society is sponsoring its Fourth Annual Medical Symposium at Wrightsville Beach August 25 from 11 a. m. to 10 p. m. The program is as follows:

Samuel F. Marshall, Boston, Diagnosis and Treatment of Tumors of Neck.
T. Grier Miller, Philadelphia, Disturbances of the Digestive Tract from the Viewpoint of the General Practitioner.
Emil Novak, Baltimore, Indications and Limitations of Endocrine Therapy in Gynecology.
Chevalier L. Jackson, Philadelphia, Recent Advances in Laryngology and Bronchoesophagology.
J. Arnold Bargen, Rochester, Minn., Management of Some Forms of Ulcerative Colitis.

The local medical auxiliary is planning a program for the wives of physicians attending.

OHIO

Personals.—Dr. Arthur M. Edwards, Shaker Heights, has been appointed to the newly created post of medical director of American Steel & Wire Company in Cleveland, a subsidiary of U. S. Steel. He will administer the medical program for all the wire company's plants. Dr. Edwards received his medical degree from Louisiana State University School of Medicine, New Orleans, in 1939 and recently his Doctor of Industrial Medicine degree from the University of Cincinnati. He served in the Medical Reserve Corps of the U. S. Army from 1940 to 1945.——The Academy of Medicine of Cleveland presented its distinguished service award for 1950 to Dr. Harry V. Paryzek, who has served in more than 40 capacities in the approximately 25 years he has been associated with the academy. He has also been president of the Ohio State Medical Association (1941-1942).

PENNSYLVANIA

State Society Plans Disaster Relief.—The Medical Society of the State of Pennsylvania is cooperating with Governor Duff's Civil Defense Committee on plans to direct the care and treatment of civilians of the commonwealth injured in disasters. Dr. Theodore R. Fetter of Philadelphia, chairman of the society's committee, has appointed Dr. Robert P. Dutlinger of Harrisburg as deputy to work in cooperation with the Civil Defense Committee in formulating detailed plans covering the medical aspects of care, treatment and evacuation. The society's Commission on Graduate Education has completed a one year program of instruction in which was included a full day's training in eleven centers throughout Pennsylvania devoted to the care and treatment of patients in the event of atomic emergency.

Pennsylvania is being divided into 15 defense districts with a medical coordinator in each district to be assisted by medical coordinators in each of the counties in his district. It will be the responsibility of the district and county medical coordinators to direct education and training of the profession and public as regards injury and sickness in time of disaster. Other organizations will cooperate with the medical program—the Red Cross in training first aid personnel, furnishing bandages and other supplies; the Civil Air Patrol in flying medical personnel and supplies into disaster areas and evacuating sick and wounded, and the state health department in educating its personnel and organizing its work. In addition to special lectures to all medical personnel within the state, the medical society's committee plans an extensive program of education to inform the public how it can cooperate with those groups organized for protection against atomic disaster. Official Army and Air Force motion pictures will inform the medical men of the state on what can be expected in injury to human beings and how to treat such persons. Other films will explain nuclear radiation and its action on the human body. The Second Army also stands ready to furnish speakers, equipment and information needed in the educational program.

The Committee on Emergency Disaster Medical Service of the Medical Society of the State of Pennsylvania includes: Drs. Theodore R. Fetter, Edward L. Bortz and Theodore P. Eberhard of Philadelphia; Frederic B. Davies, Scranton; Allen J. Hannen, Wilhamsport; Charles William Smith, Harrisburg; Emerald M. Ralston, Erie; Donald W. Gressly, Rochester, and Irwin M. Pochapin, Pittsburgh.

Philadelphia

Society Presents Rush Award.—The Philadelphia Society for Crippled Children and Adults was presented the 1949 Benjamin Rush gold medallion of the Philadelphia County Medical Society "for contributing most as a lay organization to the health of the people of Pennsylvania." Since establishment of the award by the state medical society in 1948, the procedure has been changed so that winners are now chosen on a county level and then are eligible for a statewide award at the annual meeting of the Medical Society of the State of Pennsylvania each fall.

Personals.—Dr. Donald Guthrie, Sayre, Pa., for 13 years associate professor of surgery, Graduate School of Medicine, University of Pennsylvania, has been appointed professor of clinical surgery. He is also surgeon in chief of the Guthrie Clinic and Robert Packer Hospital, Sayre, which are associated with the graduate school for training in surgery.——Dr. Leon R. Leser, Philadelphia, became assistant director of the Massachusetts General Hospital, Boston, July 1. During the past year he has been an assistant instructor in surgery at the University of Pennsylvania School of Medicine, Philadelphia.——Dr. Rufus S. Reeves, director, Department of Public Health, was granted an honorary degree of Doctor of Medical Science at the annual graduation of Hahnemann Medical College in recognition of his many years' service to the profession and the public and for his advancement of medical education.——Dr. Leroy E. Chapman, Warren, state senator for 20 years, is the recipient of an honorary LL.D. from the Woman's Medical College of Pennsylvania. On June 21 the Medical Society of the State of Pennsylvania presented him a citation "In recognition of fine service rendered in behalf of judicious health legislation in the State of Pennsylvania."

University Establishes School of Auxiliary Services.—The Board of Trustees of the University of Pennsylvania has approved plans to establish a School of Auxiliary Medical Services. The first two units of the school are to be a Division of Physical Therapy, into which is absorbed the School of Physical Therapy of the Graduate Hospital of the University of Pennsylvania, and the Philadelphia School of Occupational Therapy, which was merged with the University of Pennsylvania July 1. The curriculum is so developed that consideration of a broad educational background is paramount. After the attainment of the degree, students in each division are to have a period of practical experience in hospitals and special institutions in which there are well organized physical and/or occupational therapy departments designated as clinical training centers. College graduates are admitted for intensive courses in professional preparation which fully qualify them for either physical or occupational therapy. The school has its own faculty but, as an integral part of the university, can draw on resources of the undergraduate, graduate and professional schools. Wesley G. Hutchinson, Ph.D., will be dean of the School of Auxiliary Medical Services and Dr. George M. Piersol, medical director of the Division of Physical Therapy. Five other faculty members have been appointed.

This is declared to be the first time in this country when a large university has merged two such schools within the framework of an organization, to be known as a School of Auxiliary Medical Services, and has dignified their status with the creation of a deanship and baccalaureate degrees. The school is now accepting applications for admission and will begin operations with the opening of the new academic year in September.

Pittsburgh

Society News.—The following officers have been elected by the Pittsburgh Obstetrical and Gynecological Society for the coming year: Drs. Eugene A. Conti, president; Clarence H. Ingram Jr., vice president, and David Katz, secretary.

RHODE ISLAND

State Medical Election.—Officers for the coming year elected at the May meeting of the Rhode Island Medical Society include Drs. Charles J. Ashworth, Providence, president; Herman A. Lawson, Providence, president-elect; Morgan Cutts, Providence, secretary; Earl F. Kelley, Pawtucket, treasurer, and Charles L. Farrell, Pawtucket, delegate to the American Medical Association.

V 19

TENNESSEE

Personals.—The Tennessee Public Health Association at its recent meeting elected Dr. Robert H. Hutcheson, Nashville, state commissioner of public health, as president.——Dr. Charles H. Heacock, head of the department of radiology at the University of Tennessee College of Medicine, Memphis, has been awarded the honorary degree Doctor of Science by Bucknell University, Lewisburg, Pa.

Open Cerebral Palsy Center.—The University of Tennessee has provided a remodeled home in Nashville for use as an outpatient treatment center for cerebral palsied children. The center is a new project of Les Passees, a group of society women interested in physically handicapped children. The university is assuming responsibility for medical service and direction of the center. The clinic is guided by a medical advisory council composed of representatives of the pediatric, psychiatric and orthopedic surgery departments.

Medical Society Honors Physicians.—The Memphis and Shelby County Medical Society honored three Memphis physicians June 17 in Memphis. All were elected presidents of national organizations. Dr. Thomas D. Moore was inducted as president of the American Urological Association in June. He is head of the department of urologic surgery at the University of Tennessee College of Medicine. Dr. John J. Shea, who has practiced in Memphis since 1914, was president of the American Laryngological, Rhinological and Otological Society in 1949. Dr. James S. Speed, professor of orthopedic surgery at the University of Tennessee College of Medicine, was made president elect of the American Orthopedic Association in May. It is the society's custom to honor members of the profession elected to the presidency of the national or international society pertaining to their special fields.

VERMONT

Personal.—Dr. John Abajian Jr., Burlington, has been selected as medical director of the Red Cross Blood Center in Burlington. The center will serve all of Vermont and the northern part of New Hampshire. It is expected to open in September.

Society News.—A Vermont Chapter of the American College of Surgeons has been organized with Drs. Donald E. Coburn, St. Johnsbury, president, and Michael F. Cerasoli, Barre, secretary-treasurer.——The board of managers of the Vermont Bar Association were guests of the council of the Vermont State Medical Society in Sherburne, June 18. The afternoon was devoted to discussions of common problems.

WEST VIRGINIA

Society News.—Dr. Charles T. St. Clair Jr. of Bluefield was elected president of the West Virginia Academy of Ophthalmology and Otolaryngology at the spring meeting May 8-9, succeeding Dr. Garnett P. Morison of Charles Town. Dr. Arthur C. Chandler of Charleston was named president-elect; Dr. Melvin W. McGehee of Huntington, second vice president; Dr. Benjamin W. Bird of Princeton, secretary, and Dr. John B. Haley of Charleston, treasurer.

State Medical Meeting.—The annual meeting of the West Virginia State Medical Association will be held at the Greenbrier, White Sulphur Springs, July 27-29, under the presidency of Dr. Charles E. Watkins, Oak Hill. Thursday morning's program will be a discussion of gastrointestinal diseases. All speakers are members of the faculty of the Medical College of Virginia, Richmond; Dr. Kinloch Nelson will serve as moderator.

James O. Burke, Treatment of Gastrointestinal Hemorrhage.
Carrington Williams, Treatment of Benign Lesions of the Stomach and Duodenum.
Charles M. Caravati and Frank L. Apperly, Clinical Pathologic Conference.
George M. Curtis, Columbus, Ohio, Modern Treatment of Thyroid Diseases.
Allan C. Barnes, Columbus, Ohio, Use of Estrogenic Hormones in Clinical Practice.
Howard F. Polley, Rochester, Minn., Investigations with Cortisone and Related Hormones in Rheumatoid Arthritis and Related Diseases.
Philip Thorek, Chicago, The Acute Abdomen.
Henry B. Mulholland, Charlottesville, Va., The Newer Insulins.
Earl H. Baxter, Columbus, Ohio, Common Respiratory Infections in Children.
Frank H. Lahey, Boston, Lesions of the Terminal Ileum, Colon and Rectum.

There will be an open meeting Thursday afternoon at which Mr. Clem Whitaker and Miss Leone Baxter, Chicago, will speak on "The Broadening Front Against State Socialism" and "Medical Freedom and How to Keep It." At the Friday evening meeting Dr. Elmer L. Henderson, Louisville, Ky., President of the American Medical Association, will speak. The banquet will be held Saturday at 7 p. m. The feature attraction will be the Weirton Steel Male Chorus.

WISCONSIN

Summer Session on Alcohol Studies.—Some of the nation's foremost authorities on alcohol studies will gather at the University of Wisconsin August 21-26 to discuss recent developments in the field. In charge of the six day meeting is Prof. J. L. Miller, director of the University Extension Division's Bureau of Sociology and Social Work. Qualified to register for the session are teachers, physicians, ministers, nurses, lawyers, police and probation officers, social workers and other persons who are working in fields in which knowledge of the problems of alcoholism would be of advantage. The session will include a general introduction to problems related to alcohol and alcoholism and lectures and discussions on the biologic, social, historical, religious, economic and legal aspects of the problem. Also included will be methods of treatment and an open meeting of Alcoholics Anonymous. Information concerning the summer session on alcohol studies can be obtained from Prof. J. L. Miller, 206 Extension Building, University of Wisconsin, Madison.

GENERAL

Board Announcements.—The American Board of Anesthesiology will hold its oral examinations in Chicago October 8-11 at the Edgewater Beach Hotel, not at the Palmer House as was previously announced. On August 1 the board will change the location of its national headquarters from New York City to Hartford Hospital, 80 Seymour Street, Hartford, Conn. All information and inquiries should be directed to the new location after August 1.

Society Elections.—At the American Gynecological Society meeting in May Dr. Frederick Irving of Boston was elected president for the coming year. Drs. Edward L. King, New Orleans, and Otto Schwarz, St. Louis, were elected vice presidents, and Norman F. Miller, Ann Arbor, Mich., reelected secretary.——At the annual meeting of the American Neurological Association in Atlantic City, N. J., in June officers elected for the coming year include: Drs. Wilder G. Penfield, Montreal, Canada, president; S. Bernard Wortis, New York, president-elect, and H. Houston Merritt, New York, secretary-treasurer.

Radiologic Conference.—The Rocky Mountain Radiological Society is holding its Mid-Summer Radiological Conference at the Shirley-Savoy Hotel, Denver, August 17-19. The guest speakers include:

George F. Lull, Secretary and General Manager, American Medical Association, Chicago, Medical Economic Policies of the American Medical Association.
Eugene P. Pendergrass, Philadelphia, Diagnosis of Cancer of Breast: Role of Radiation in Its Treatment and Effects of Hormones on Breast Cancer.
Orville N. Meland, Los Angeles, Carcinoma of the Larynx.
Kent Linblom, Carolina Hospital, Stockholm, Sweden, Arthrography of the Knee.
Ursus V. Portmann, Cleveland, Radiotherapy for Nonmalignant Conditions.

Research Fellowships — American College of Physicians.—The American College of Physicians announces that a limited number of fellowships in medicine will be available from July 1, 1951 to June 30, 1952. These fellowships are designed to provide an opportunity for research training either in the basic medical sciences or in the application of these sciences to clinical investigation. They are for the benefit of physicians who are in the early stages of their preparation for a teaching and investigative career in internal medicine. Assurance must be provided that the applicant will be acceptable in the laboratory or clinic of his choice and that he will be provided with the facilities necessary for the proper pursuit of his work. The stipend will be $2,200 to $3,200. Application forms will be supplied on request to the American College of Physicians, 4200 Pine Street, Philadelphia 4, and must be submitted in duplicate not later than Oct. 1, 1950.

Arthritis and Rheumatism Research Fellowships.—The Arthritis and Rheumatism Foundation, initiating a new step in its research program, is now offering fellowships for research in the basic sciences related to the study of arthritis. The foundation is anxious to back a candidate, rather than a project, an institution or a hospital. It hopes to arouse interest in arthritis in a wider circle of medical investigators and to encourage able, inquiring minds into the whole problem of the rheumatoid diseases. The fellowships will carry a stipend of $4,000 to $6,000, depending on the needs and ability of the worker, and will run for a period of one year. Applications should be sent to the Arthritis and Rheumatism Foundation, 535 Fifth Avenue, New York 17. Applications received by September 15 of this year will be acted on at that time and notification of fellowships made immediately. All applications must be received by Jan. 1, 1951.

Prevalence of Poliomyelitis.—Reports of cases of poliomyelitis for the periods indicated have been received from the National Office of Vital Statistics, U. S. Public Health Service:

	Week Ended		Total*		Five Year Median
	July 1, 1950	July 2, 1949	1950	1949	1945-1949
United States Total	391	481	2,053	2,271	1,385
New England States:					
Maine	1	..	2	11	2
New Hampshire	..	..	1	..	1
Vermont	..	..	1	1	1
Massachusetts	3	10	8	42	3
Rhode Island	..	..	1	1	1
Connecticut	3	3	8	8	5
Middle Atlantic States:					
New York	27	12	90	48	48
New Jersey	7	2	35	33	17
Pennsylvania	11	7	31	19	16
East North Central States:					
Ohio	4	6	31	13	21
Indiana	3	7	14	21	15
Illinois	9	11	40	39	26
Michigan	10	12	48	32	11
Wisconsin	3	5	25	14	4
West North Central States:					
Minnesota	2	25	13	58	14
Iowa	3	4	43	29	19
Missouri	7	11	32	30	13
North Dakota	..	6	..	21	3
South Dakota	..	..	6	19	3
Nebraska	4	2	20	17	17
Kansas	8	13	17	22	17
South Atlantic States:					
Delaware	1	..	2	6	1
Maryland	1	..	4	5	3
District of Columbia	3	1	7	3	1
Virginia	8	4	10	7	7
West Virginia	4	6	22	27	5
North Carolina	4	3	29	30	25
South Carolina	17	..	32	10	10
Georgia	4	4	9	18	19
Florida	6	1	35	31	46
East South Central States:					
Kentucky	14	5	34	21	13
Tennessee	11	10	25	33	19
Alabama	6	14	31	32	32
Mississippi	11	..	37	50	13
West South Central States:					
Arkansas	4	50	37	165	15
Louisiana	15	15	48	51	26
Oklahoma	15	51	83	100	19
Texas	124	118	702	486	275
Mountain States:					
Montana	..	..	2	7	5
Idaho	3	9	16	39	3
Wyoming	..	2	6	7	1
Colorado	2	2	21	16	10
New Mexico	1	4	12	19	5
Arizona	1	3	39	10	6
Utah	1	1	6	36	8
Nevada	..	..	1	2	..
Pacific States:					
Washington	1	7	6	29	23
Oregon	..	2	23	29	4
California	22	29	237	198	197

* Beginning with 12th week of each year.

Women's Graduate Research Award. — Sigma Delta Epsilon, Graduate Women's Scientific Fraternity, announces a second research award of $500 to be given during the meeting of the American Association for the Advancement of Science in Cleveland in December. Any woman engaged in research in the mathematical, physical or biologic sciences, who has been a member in good standing of Sigma Delta Epsilon for at least six months prior to Oct. 1, 1950, is eligible for consideration for the award. The award will be given to the author or authors of the best paper describing original research and published or accepted for publication in a scientific journal during the year 1950 or presented at any regular session of any scientific society meeting during the year 1950. Three copies of the papers, in a form suitable for publication, must be submitted, not later than October 1. A new award of $200 is available for 1950, this one to be presented for the best paper describing original research carried out in the home.

Poliomyelitis Foundation Grants. — Awards totaling $1,441,721 for scientific research and professional education in poliomyelitis have been approved by the Board of Trustees of the National Foundation for Infantile Paralysis. The awards from March of Dimes contributions were made to 19 universities, institutions and professional organizations throughout the United States. They will support 34 projects for research aimed at preventing the disease and improving treatment methods, as well as for the training of doctors, scientists, nurses and other professional persons. In the 12 years of its existence the National Foundation has expended more than 26 million dollars in its search for a means to prevent the disease, to develop better treatment methods and to provide for the training of professional personnel. The 34 new awards are in three categories: 11 for virus research, 9 for treatment of after-effects of the disease and 14 for professional education. The Board of Trustees by interim action earlier in the year also approved an award of $150,000 to the American Hospital Association in Chicago for a two year study of the costs of hospital care. Also awarded at that time was $75,000 to the International Poliomyelitis Congress for its program of activities.

International Congress on Diseases of Chest. — The First International Congress on Diseases of the Chest will be held at the Carlo Forlanini Institute in Rome, Italy, September 17-22, sponsored by the American College of Chest Physicians' Council of International Affairs and the Institute, with the patronage of the Italian government. Physicians from the United States who will present papers include:

Robert J. Anderson, Washington, D. C., Communitywide Case Finding by Roentgen Examination of the Chest.
John F. Briggs, St. Paul, Pulmonary Mimicry in Bronchogenic Carcinoma.
Andrew L. Banyai, Milwaukee, Clinical Application of Artificial Pneumoperitoneum.
Henry A. Brodkin, Newark, N. J., Congenital Deformities of the Anterior Chest Wall.
A. Albert Carabelli, Trenton, N. J., Laryngotracheobronchial Anesthesia with Subpsoslogic Doses of Tetracaine (Pontocaine®) Hydrochloride in Bronchoscopy and Bronchography.
Seymour M. Farber, San Francisco, Cytologic Diagnosis of Lung Cancer.
Frank R. Ferlaino, New York, Industrial Pulmonary Dust Diseases and Control of Hazards.
Alfred Goldman, Beverly Hills, Calif., Bronchotomy for Bronchial Adenoma.
James J. Hennessy, Hartford, Conn., Obscure Pulmonary Bleeding.
William A. Hudson, Detroit, Tumors of the Esophagus.
Stelio Z. Imprescia, Perry Point, Md., Carcinoma of the Lung and Chromates.
Chevalier L. Jackson, Philadelphia, Adenoma of the Bronchus.
Edgar Mayer, New York, Pulmonary Fibrosis.
Jay Arthur Myers, Minneapolis, Primary Tuberculosis in Adults.
Richard H. Overholt, Brookline, Mass., Benefits of Excision in Lung Disease.
Benjamin P. Potter, Jersey City, N. J., Changing Concepts of Indications for Collapse Therapy.
Moses J. Stone, Boston, Treatment of Tuberculosis Meningitis and Miliary Tuberculosis with Emphasis on Prolonged Streptomycin Therapy.
Henry C. Sweany, Chicago, Studies on Paraaminosalicylic Acid in Treatment of Pulmonary Tuberculosis.
Samuel A. Thompson, New York, Surgical Rehabilitation of the Coronary Cripple.
Harold G. Trimble, Oakland, Calif., Coccidioidomycosis.

Advance registration may be made with the American College of Chest Physicians, 500 North Dearborn, Chicago.

CORRECTION

Dr. Hollis Heads Department of Otolaryngology.—Dr. Charles B. Hollis, not Charles H. Hollis as was stated in THE JOURNAL May 20, page 306, of the Hahnemann Medical College and Hospital has been promoted to professor and head of the department of otolaryngology. Dr. Charles B. Hollis is a graduate of the college (1912), did postgraduate work at the University of Vienna and in 1938 and 1939 was professor and head of the department at Hahnemann. He rejoined the faculty in 1946.

Marriages

ENRICO CARLO FUNARO, Hackensack, N. J., to Miss Katherine Jean Mickle of Point Pleasant Beach, May 19.

JOHN WILKINSON MOYNIHAN, Ridgewood, N. J., to Miss Barbara Ann Ronan of New York, May 27.

PIERRE HENRY JACQUES JOHANNET, New York, to Miss Judith Knapp of Cazenovia, N. Y., May 27.

CLEMENT R. MONROE, Pinehurst, N. C., to Miss Mabel Geraldine Caddell of Hoffman, May 27.

WEBSTER RAY POINDEXTER JR., Berkeley, Calif., to Miss Marjorie Nield of Alameda, in April.

HERBERT JANSON, Homewood, Ill., to Miss Mary Filson of Matteson in Chicago, May 27.

RAFFAELE D'ALISA, Kings Park, N. Y., to Miss Fay Diasio of New York, June 8.

SHELDON CHOLST, Brooklyn, to Miss Betty Brody in Newark, N. J., May 4.

DEATHS

Snow, William Freeman ● New York, general director emeritus, founder and chairman of the board of directors of the American Social Hygiene Association, died suddenly in Bangor, Me., June 12, aged 75, of coronary occlusion. Dr. Snow was born in Quincy, Ill., July 13, 1874. He received his medical degree from Cooper Medical College in San Francisco in 1900 and did postgraduate work at Johns Hopkins University and at other institutions here and abroad. In 1900 he joined Stanford University as university physician, in 1902-1903 was assistant professor, from 1903 to 1909 associate professor and from 1909 to 1919 professor of hygiene and public health. From 1903 to 1909 Dr. Snow served as epidemiologist and from 1909 to 1914 was a member and executive officer of the California State Board of Health. He was lecturer at Johns Hopkins University School of Hygiene and Public Health from 1920 to 1926, at New York University from 1930 to 1936 and at Columbia University from 1928 to 1940. He was president of the State and Provincial Health Authorities of North America (1912-1913), the National Health Council (1927-1934), of which he had been treasurer, and the International Union Against Venereal Diseases. From 1924 to 1928 he was chairman of a committee of the League of Nations to study traffic in women and children. In 1917 Dr. Snow was appointed a member of the National Council of Defense and served also as chairman of the executive committee of the U. S. Interdepartmental Social Hygiene Board. He was on active duty with the U. S. Army in the Surgeon General's office and with the American Expeditionary Forces in charge of venereal disease prevention measures from 1917 to 1919, retiring with the rank of colonel. He had been special consultant for the U. S. Public Health Service since 1936, and during World War II was a member of the government's interdepartmental venereal disease committee. Dr. Snow was a member of the House of Delegates of the American Medical Association (1906-1907), a member of the California Medical Association and a fellow of the American Public Health Association, National Education Association, New York Academy of Medicine and the American Association for the Advancement of Science. In October 1937 he was presented the William Freeman Snow medal, a bronze medallion portrait of himself, for distinguished service in social hygiene, which has since been presented annually by the American Social Hygiene Association. Dr. Snow was a member of the board of editors of *Sight-Saving Review* and editor of *Social Hygiene* from 1914 to 1924.

Volini, Italo Frederick ● Chicago; born in Chicago May 24, 1893; Rush Medical College, Chicago, 1917; professor of medicine and head of the department at the Loyola University School of Medicine, where he formerly had been dean; vice president and member of the board of trustees and chairman of the division of internal medicine of the Cook County Graduate School of Medicine; specialist certified by the American Board of Internal Medicine; served on the school board of the city of Chicago; member of the board of governors of the Institute of Medicine of Chicago and regent of the American College of Chest Physicians; fellow of the American College of Physicians; member of the Chicago Tuberculosis Society, Medical Society of Bologna, Italy, Chicago Society of Internal Medicine and the Chicago Heart Association, of which he had been a director; received a diploma from the Academy of Medicine of Rome, formerly the Royal Academy of Medicine, making him a member of that society; awarded the rank of chevalier of the Order of the Crown of Italy "for service to the Italian people in the United States and for fostering Italian ideals and culture"; vice president of the executive staff and on the attending staff of Cook County Hospital; associated with Holy Cross, St. Bernard's, St. Elizabeth's, Mother Cabrini and Oak Park (Ill.) hospitals; honorary president of the Mother Cabrini and Columbus hospitals; died in San Francisco June 24, aged 57, of acute coronary occlusion.

Swift, Edwin Chester ● Jacksonville, Fla.; born in Woodbine, Ga., Oct. 15, 1900; Emory University School of Medicine, Atlanta, 1924; fellow of the American College of Physicians; member of the American Heart Association; past president and vice president of the Florida East Coast Medical Association; appointed lieutenant in the medical corps of the U. S. Naval Reserve in April 1935; called to active duty in June 1941, serving at the Naval Hospital in Jacksonville, Mobile Hospital number 8 at Guadalcanal in 1943, Base Hospital number 3 at Espiritu Santo, New Hebrides and with Fleet Hospital number 105 in New Caledonia as chief of medicine; in 1945 he was reassigned to duty at the hospital at Jacksonville, and was released from inactive duty in January 1946; in April 1949 was recalled to active duty at his own request and as captain was assigned to the Naval Hospital at Philadelphia, where he remained until his death June 5, aged 49.

Van Ophuijsen, Johan Hendrik Wijnand ● New York; born in the Dutch East Indies, Nov. 12, 1882; Rijks-Universiteit te Leiden Faculteit der Geneeskunde, Netherlands, 1909; member of the American Psychoanalytic Association and the American Psychiatric Association; specialist certified by the American Board of Psychiatry and Neurology; lecturer, division of psychoanalytic medicine, at the Long Island College of Medicine in Brooklyn, now known as the State University of New York; formerly associated with the New York Psychoanalytic Institute; director of the Institute for Psychobiologic Studies of Creedmoor State Hospital at Queens Village; consulting psychiatrist for the Jewish Board of Guardians; affiliated with the Veterans Administration Hospital in the Bronx, Lenox Hill and Mount Sinai hospitals; died May 31, aged 67, of coronary thrombosis.

Williams, Horace James ● Philadelphia; born in Chincoteague Island, Va., in 1885; Jefferson Medical College of Philadelphia, 1912; professor of otology at his alma mater; for many years associate in otorhinology at the Graduate School of Medicine of the University of Pennsylvania; specialist certified by the American Board of Otolaryngology; served during World War I; member of the American Academy of Ophthalmology and Oto-Laryngology, American Laryngological, Rhinological and Otological Society and American Otological Society; fellow of the American College of Surgeons; affiliated with Jefferson Hospital, Germantown Dispensary and Hospital, Philadelphia Hospital for Contagious Diseases and Memorial Hospital; civilian consultant of the Veterans Administration; died in Beebe Hospital, Lewes, Del., June 3, aged 64.

Adams, Melvin L., North East, Pa.; Homeopathic Medical College, Cleveland, 1888; died in Hamot Hospital, Erie, May 24, aged 87, of coronary occlusion with infarction.

Allison, Harold T., ● Kansas City, Mo.; Northwestern University Medical School, Chicago, 1911; served during World War II; a rating board specialist for the Veterans Administration; died June 11, aged 64.

Angeny, Granville Louis ● Medical Director, Captain, U. S. Navy, retired, Havertown, Pa.; University of Pennsylvania Department of Medicine, Philadelphia, 1894; entered the U. S. Navy Sept. 26, 1898; retired Nov. 1, 1932; fellow of the American College of Surgeons; died March 28, aged 81, of aortic stenosis.

Arntsen, Lester Leloid ● Omaha; Northwestern University Medical School, Chicago, 1930; instructor in surgery at the Creighton University School of Medicine; served in the Pacific in the medical corps of the U. S. Naval Reserve during World War II; affiliated with Children's Memorial, St. Joseph's, Doctors, Immanuel and Clarkson hospitals; on the staff of Lutheran Hospital, where he died May 14, aged 44, of carcinoma.

Austin, Dixon Lawrence, New York; Fordham University School of Medicine, New York, 1915; served during World War I; died May 30, aged 59, of hypertensive heart disease.

Barnes, Charles Wesley, Louisville, Ky.; Kentucky School Medical Department, Louisville, 1906; died March 6, aged 72, of coronary thrombosis.

Barr, Daniel Randolph ● Grand Rapids, Ohio; Toledo Medical College, 1911; during World War I, served overseas with the American Red Cross; chairman of the Wood County Park Board; on the staffs of Flower and St. Vincent's hospitals in Toledo; died May 24, aged 63, of coronary thrombosis.

● Indicates Fellow of the American Medical Association.

Barr, Frederick Greiner ● Dayton, Ohio; Jefferson Medical College of Philadelphia, 1916; vice president in charge of industrial relations at the National Cash Register Company; died in Miami Valley Hospital May 6, aged 83, of coronary thrombosis.

Black, Hugh Snoddy, Spartanburg, S. C.; Jefferson Medical College of Philadelphia, 1917; member of the American Medical Association, Southern Medical Association, Association of Southern Railway Surgeons and the Southeastern Surgical Congress; fellow of the American College of Surgeons; formerly fellow and first assistant in surgery at the Mayo Foundation in Rochester, Minn.; affiliated with the Mary Black Clinic and Hospital; died May 22, aged 57.

Bogart, Clarence Nall ● Forrest City, Ark.; University of Tennessee College of Medicine, Memphis, 1929; served during World War II; died May 24, aged 45, of heart disease.

Bonaviez, Katherine Eliza Kinsey, Denver; Creighton University School of Medicine, Omaha, 1911; died in the Porter Sanitarium and Hospital May 8, aged 73, of heart disease.

Boyd, Francis Peter ● Springfield, Mass.; Tufts College Medical School, Boston, 1911; member of the New England Obstetrical and Gynecological Society; on the staff of Wing Memorial Hospital in Palmer and Mercy Hospital; died May 11, aged 64, of coronary thrombosis.

Branton, Berton J., ● Willmar, Minn.; University of Minnesota College of Medicine and Surgery, Minneapolis, 1905; past president of the Minnesota State Medical Association and the Northern Minnesota Medical Association; fellow of the American College of Surgeons; on the staff of Rice Memorial Hospital; died in Atwater May 9, aged 66, of coronary thrombosis.

Brinson, Ed Lane ● Bellingham, Wash.; Jefferson Medical College of Philadelphia, 1907; served as acting assistant surgeon in the U. S. Public Health Service during World War I; formerly county health officer; died May 17, aged 64.

Burns, Robert Francis ● Fitchburg, Mass.; Baltimore Medical College, 1908; past president of the Worcester North District Medical Society; chairman of the board of health; affiliated with Burbank Hospital; died June 5, aged 66, of coronary disease.

Burrow, Trigant ● Greens Farms, Conn.; University of Virginia Department of Medicine, Charlottesville, 1899; member of the American Psychiatric Association and the American Psychopathological Association; served as scientific director of the Lifwynn Foundation for Analytic and Social Psychiatry at Westport; died May 24, aged 74, of lymphoma.

Carr, William John, Newburgh, N. Y.; Bellevue Hospital Medical College, New York, 1894; member of the American Medical Association; from 1897 to 1904 health officer of Newburgh; affiliated with St. Luke's Hospital, where he died May 30, aged 81, of bronchopneumonia.

Chapman, Ottis Peyton ● Elizabeth, N. J.; University of Louisville (Ky.) Medical Department, 1912; member of the American Association of Industrial Physicians and Surgeons; affiliated with Alexian Brothers and St. Elizabeth hospitals; died May 14, aged 63.

Cirino, Joseph W., New Orleans; Medical Department of Tulane University of Louisiana, New Orleans, 1902; on the staff of Hotel Dieu, where he died May 3, aged 70, of diabetes mellitus.

Conley, George J., Kansas City, Mo.; Eclectic Medical University, Kansas City, 1902; died recently, aged 77, of cirrhosis of the liver.

Fowler, Millard M., Marion, Ill.; University of Tennessee Medical Department, Nashville, 1897; died April 5, aged 79.

Frazer, Jewett Hunter, New York; Kentucky University Medical Department, Louisville, 1906; served in the medical corps of the U. S. Army during World War I; medical director of the Arlington Chemical Company in Yonkers for many years; died May 11, aged 68, of hypertension, coronary disease and diabetes mellitus.

Friedman, Philip Jacques, New York; University and Bellevue Hospital Medical College, New York, 1910; member of the American Medical Association; died in May, aged 66, of cardiac decompensation.

Fuhrer, John Earl, Brawley, Calif.; University of Louisville (Ky.) Medical Department, 1909; died May 8, aged 69.

Gathings, Robert Oscar, Cedartown, Ga.; Meharry Medical College, Nashville, Tenn., 1918; died April 17, aged 63.

Guttery, Edwin George, Danville, Ky.; Kentucky School of Medicine, Louisville, 1897; died May 1, aged 81.

Hamilton, Fred C., Kankakee, Ill.; Northwestern University Medical School, Chicago, 1893; member of the American Medical Association; died June 4, aged 79, of heart disease.

Harney, James Barker ● Chicago; Chicago College of Medicine and Surgery, 1915; roentgenologist at the Belmont Hospital; died in Hotel Dieu, New Orleans, April 25, aged 70, of carcinoma of the rectosigmoid colon.

Jordan, Fletcher ● Greenville, S. C.; University of Virginia Department of Medicine, Charlottesville, 1906; died in Francis Hospital April 17, aged 70.

Jordan, Henry W., Robertsdale, Ala.; Memphis (Tenn.) Hospital Medical College, 1912; member of the American Medical Association; died March 5, aged 66, of acute coronary occlusion.

Kistler, John Dengler ● Pittsburgh; Hahnemann Medical College and Hospital of Philadelphia, 1909; fellow of the American College of Surgeons; on the staff of Shadyside Hospital, where he died April 21, aged 64.

Knapp, George Leonard, Lafayette, Ind.; Dunham Medical College, Chicago, 1902; served as editorial writer for labor organs and as a Washington correspondent; died May 7, aged 78, of a cerebral accident.

Lantz, James Morris, Lancaster, Ohio; Starling-Ohio Medical College, Columbus, 1908; died April 29, aged 68.

Leatherman, Kate Wissler, Thurmont, Md.; Woman's Medical College of Pennsylvania, Philadelphia, 1895; member of the American Medical Association and the Medical Society of the State of Pennsylvania; died April 28, aged 88.

McGillivray, Donald Edward ● Port Angeles, Wash.; Trinity Medical College, Toronto, Canada, 1899; fellow of the American College of Surgeons; member of the House of Delegates of the American Medical Association from 1916 to 1918 and in 1920, 1922, 1923, 1924, 1925 and 1928; affiliated with the Port Angeles General Hospital; died recently, aged 77, of cerebral thrombosis.

Maiello, Luigi, Providence, R. I.; Regia Università di Napoli Facoltà di Medicina e Chirurgia, Italy, 1899; served in the state senate and as city councilman; died in Rhode Island Hospital April 30, aged 75, of cerebral hemorrhage.

Martin, John William, Bemis, Tenn.; Memphis (Tenn.) Hospital Medical College, 1888; died April 24, aged 88.

Miles, Isabel A., Brockton, Mass. (licensed in Massachusetts in 1930); died May 23, aged 55, of coronary embolism.

Miller, Howard Coombs, Youngstown, Ohio; Western Reserve University Medical Department, Cleveland, 1900; member of the American Medical Association; on the emeritus staff of the Youngstown Hospital Association; died in the Southside unit of Youngstown Hospital May 14, aged 73, of multiple gastric ulcers.

Moschkowitz, Hermann, Newark, N. J.; Friedrich-Wilhelms-Universität Medizinische Fakultät, Berlin, Prussia, 1919; member of the American Academy of Dermatology and Syphilology; died April 24, aged 56, of cirrhosis of the liver.

Newburn, Walter, Sackets Harbor, N. Y.; Medical College of Alabama, Mobile, 1901; died May 10, aged 77, of coronary thrombosis.

Newton, Ethel Susanna Mitchell, Concord, N. H.; Tufts College Medical School, Boston, 1903; died May 20, aged 69.

Nixon, Ray A., Markesan, Wis.; Starling-Ohio Medical College, Columbus, 1911; died April 25, aged 63, of coronary thrombosis.

O'Connor, John James, Jackson Heights, N. Y.; Fordham University School of Medicine, New York, 1916; regional medical director of the U. S. Civil Service Commission for New York and New Jersey; for many years associated with the U. S. Public Health Service; died May 20, aged 59.

Parish, Irving, Houston, Texas; Baylor University College of Medicine, Dallas, 1909; assistant professor of clinical obstetrics at his alma mater; member of the American Medical Association; affiliated with Methodist and Jefferson Davis hospitals and St. Joseph's Infirmary; died May 16, aged 64.

Parsons, Joseph G., Crookston, Minn.; University of Minnesota College of Medicine and Surgery, Minneapolis, 1898; member of the American Medical Association and the American Academy of Ophthalmology and Oto-Laryngology; died in Hampton Falls, N. H., May 14, aged 79, of aortic dissecting aneurysm and arteriosclerosis.

Paule, Charles Edward, Kissimmee, Fla.; St. Louis University School of Medicine, 1924; formerly practiced in St. Louis, where he was on the staffs of the Alexian Brothers apd St. Anthony's hospitals; died May 17, aged 50, of coronary thrombosis.

Pendleton, Cyrus Edmund, Colchester, Conn.; Yale University School of Medicine, New Haven, 1903; member of the American Medical Association; for many years health officer; town clerk and medical examiner for the town of Colchester; died May 8, aged 74.

Perkins, Thornton W., Hopkinsville, Ky.; College of Physicians and Surgeons, Baltimore, 1900; member of the American Medical Association; died April 10, aged 80, of carcinoma of the prostate.

Phillips, Elliot Earle, Ohiopyle, Pa.; Jefferson Medical College of Philadelphia, 1906; also a graduate in pharmacy; member of the board of health; died April 29, aged 69, of coronary occlusion.

Pierce, James Mortimer, Cincinnati; University of Michigan Medical School, Ann Arbor, 1923; formerly on the faculty of his alma mater and assistant professor of obstetrics at the University of Cincinnati College of Medicine; served during World War I; specialist certified by the American Board of Obstetrics and Gynecology; fellow of the American College of Surgeons; senior attending obstetrician at Christ and Jewish hospitals; died May 24, aged 52, of coronary occlusion.

Poe, John Seldon ● Little Rock, Ark.; Washington University School of Medicine, St. Louis, 1935; specialist certified by the American Board of Psychiatry and Neurology; member of the Missouri State Medical Association; served during World War II; died May 21, aged 40.

Probert, Clarence Clement, Flint, Mich.; University of Michigan Department of Medicine and Surgery, Ann Arbor, 1908; affiliated with Hurley, Women's and St. Joseph's hospitals; died May 27, aged 68, of coronary thrombosis.

Reeder, Henry Maurice ● Konawa, Okla.; University Medical College of Kansas City, 1908; affiliated with Valley View Hospital, where he died March 27, aged 74, of cerebral hemorrhage and arteriosclerosis.

Reichard, Lewis Nyman ● Brownsville, Pa.; College of Physicians and Surgeons, Baltimore, 1899; past president of the Fayette County Medical Society; secretary of the local board of health; affiliated with Brownsville General Hospital; died May 15, aged 73, of embolism and heart disease.

Riley, John William, Oklahoma City, Okla.; University of Buffalo School of Medicine, 1901; fellow of the American College of Surgeons; member of the House of Delegates of the American Medical Association in 1916 and 1917; served on the faculty of the University of Oklahoma School of Medicine; on the honorary staff of St. Anthony's Hospital, where he died May 15, aged 72, of adenocarcinoma of the rectum with metastases.

Rinehart, Harvey Earl ● Wheeler, Ore.; University of Oregon Medical School, Portland, 1913; member of the school board; died May 15, aged 65.

Rogers, Frederick Edward ● Lander, Wyo.; University of Kansas School of Medicine, Kansas City, 1934; past president of the Washington County (Kan.) Medical Society; on the staff of Bishop Randall Hospital; died May 17, aged 41.

Rothschild, Ida W., New York; Regia Università degli Stuid di Pavia, Facoltà di Medicina e Chirurgia, Italy, 1935; member of the American Medical Association; affiliated with Fordham Hospital; died May 18, aged 41, of carcinoma.

Saur, Charles, North Bend, Ohio; Medical College of Ohio, Cincinnati, 1901; died May 18, aged 72.

Schnetz, Luther Nelson, Racine, Wis.; Milwaukee Medical College, 1905; died April 30, aged 74, of cerebral hemorrhage.

Seibert, William K., Philadelphia; Medico-Chirurgical College of Philadelphia, 1905; member of the American Medical Association; died May 17, aged 71.

Smith, Albert Alexander, Talco, Texas; Southwestern University Medical College, Dallas, 1905; member of the American Medical Association; died in Paris March 31, aged 82.

Smith, Sidney M., Milwaukee; Queen's University Faculty of Medicine, Kingston, Ont., Canada, 1900; member of the American Medical Association; served as mayor and health commissioner of South Milwaukee; affiliated with Mercy Hospital; died May 10, aged 76, of arteriosclerosis and myocarditis.

Smith, Van, Birmingham, Ala.; Atlanta Medical College, 1885; died April 17, aged 90, of senility.

Sneed, Archie Gustavus, Dallas, Texas; Baylor University College of Medicine, Dallas, 1921; affiliated with the Veterans Administration; died May 13, aged 59.

Spivak, Louis Joseph, Houston, Texas; Jefferson Medical College, Philadelphia, 1906; member of the American Psychiatric Association; associate professor of clinical psychiatry at Baylor University College of Medicine; affiliated with Jefferson Davis Hospital; died recently, aged 65, of coronary thrombosis.

Tannenbaum, Julius ● New York; Long Island College, Brooklyn, 1900; died recently, aged 78, of hemiplegia.

Tarbox, Harry Russell, Greenwich, Conn.; University of Pennsylvania Department of Medicine, Philadelphia, 1903; died in Greenwich Hospital May 27, aged 72, of cerebral hemorrhage.

Thompson, Earnest, L., Hot Springs National Park, Ark.; University of Nashville (Tenn.) Medical Department, 1902; member of the American Medical Association; formerly in charge of Garland County health department; died recently, aged 72, of coronary thrombosis.

Toothaker, Wayne Marion ● St. Joseph, Mo.; St. Louis University School of Medicine, 1940; died April 14, aged 35.

Tucker, Easter Wood, Fairfield, Ala.; University of Alabama School of Medicine, University, 1913; member of the American Medical Association; died in Daytona Beach, Fla., April 22, aged 60.

Walsh, Henry Victor, New York; Columbia University College of Physicians and Surgeons, New York, 1919; affiliated with St. Vincent's Hospital; died June 8, aged 55.

Waltz, Frederick Alden, Columbus, Ohio; Ohio State University College of Medicine, Columbus, 1942; instructor in surgery at his alma mater, where he was visiting associate physician at the University Student Health Service; served during World War II; died May 24, aged 31, of Hodgkin's disease.

Weir, Clark E., Abingdon, Ill.; St. Louis University School of Medicine, 1906; member of the American Medical Association; died in St. Mary's Hospital, Galesburg, May 23, aged 70.

Williams, Harry Bion ● Castle Point, N. Y.; Syracuse University College of Medicine, 1904; member of the American Trudeau Society; served on the staffs of Veterans Administration hospitals from 1925 to retirement on July 31, 1949; died in the Veterans Administration Hospital June 4, aged 70, of carcinoma of the prostate.

Wilson, Frank Delos ● Sioux City, Iowa; Keokuk Medical College, College of Physicians and Surgeons, 1908; died May 15, aged 68.

Wise, Herbert Bennette, Weston, W. Va.; Temple University School of Medicine, Philadelphia, 1932; member of the American Medical Association; honorary member of the Central West Virginia Medical Society; second vice president of the West Virginia Public Health Association; formerly health officer of Charleston; health officer of district number 4, which includes, Calhoun, Gilmer, Lewis and Upshur counties; died June 9, aged 44.

Woodworth, John Dawson Roswell ● Lieut. Col., U. S. Army, retired, Norwell, Mass.; Tufts College Medical School, Boston, 1901; member of the school committee and board of health; served during World War I; entered the medical corps of the U. S. Army in September 1920 and retired Aug. 31, 1939; died May 5, aged 74, of auricular fibrillation.

Young, James W., Mentor, Ohio; Cleveland University of Medicine and Surgery, 1896; died in the Lake County Memorial Hospital, Painesville, May 26, aged 88, of injuries received in a fall.

Young, Roy Odo, Youngsville, La.; Medical Department of Tulane University of Louisiana, New Orleans, 1894; died April 28, aged 79, of heart disease.

Zambarano, Ubaldo Edward, Providence, R. I.; Georgetown University School of Medicine, Washington, D. C., 1924; member of the American Medical Association, American College of Chest Physicians and the American Trudeau Society; executive secretary of the Providence Tuberculosis League; served as superintendent of the State Sanatorium at Wallum Lake; died in Rhode Island Hospital, May 29, aged 50.

FOREIGN LETTERS

ITALY

(From a Regular Correspondent)

Naples, May 2, 1949.

Catheterization Through the Radial Artery

To advance the tip of the catheter into the pulmonary artery the Sedersjukhuset group uses general anesthesia. Otherwise, when the contrast medium passes through the lungs, the patient begins to cough and the roentgenograms become confused. General anesthesia is also advisable when the contrast medium is injected directly into the cubital vein and the tip of the catheter is not yet in the pulmonary artery. Dr. Jonsson adopts this method of inserting the tip into the pulmonary artery as routine also the aorta in children or adults when it is not possible to inject the contrast medium directly into the arterial system.

But thoracic aortography is the only way to ascertain the perviousness of the patent ductus arteriosus (Botallo's duct) in the adult; this is done by insertion of the catheter along a peripheral artery to reach the aorta. Formerly, Dr. Jonsson inserted the catheter into the right carotid. Now, because this method is not without risk, he prefers to introduce the catheter into the radial artery, propelling with a "syringal" syringe the opaque liquid with a velocity of 30 cc. per second, administering a total of 40 to 80 cc.

Selective angiocardiography by injection through the radial artery is imperative in cases in which the patent ductus arteriosus is scarcely noticeable, as occurs in most adults who present few clinical signs of anomaly. The permeability of the patent ductus arteriosus is indicated by the presence of a continuous murmur at the second left intercostal space. This murmur may be divided into two distinct components: *systolic and diastolic*. It may appear and disappear, rendering definite diagnosis difficult.

Dr. Jonsson discussed 6 cases in which a continuous murmur was not heard. Five of these were due to permeability of the ductus arteriosus and one to communication at the basal portion of the great vessels. Selective angiocardiography shows whether the ductus is functioning in addition to being pervious, and by means of a catheter passed along the radial artery to the aorta the patent ductus arteriosus is outlined in its entire length.

Coarctation of the Aorta

The studies on coarctation of the aorta performed in the United States are the most complete in the world. They have aroused a great deal of attention in European centers. Reference is made particularly to the following papers: "Treatment for Coarctation of Aorta" by Dr. E. Gross of Boston (J. A. M. A. **139**:285 [Jan. 29] 1949), "Anomalies of the Derivatives of the Aortic Arch System" by Jesse E. Edwards (*M. Clin. North America* **32**:925 [July] 1948), "Coarctation of the Aorta" by Adams and his co-workers (J. A. M. A. **139**:362 [Feb. 5] 1949), "Diagnosis of Coarctation of the Aorta" by Proudfit and Ernstene (J. A. M. A. **139**:985 [April 9] 1949) (in the discussion of which Clagett estimates that there are 35,000 cases of coarctation in the United States, in Italy there are perhaps 5,000) and "Radiography and Its Clinical Applications" by Prinzmetal and co-workers (J. A. M. A. **139**:617 [March 5] 1949).

Dr. Gunnar Jonsson was invited to lecture at two of the oldest universities of medicine, Naples and Bologna. Both lectures were attended by a large number of physicians. Dr. Jonsson showed about 30 impressive angiocardiograms. These angiocardiograms probably will be shown in North America within a few months. Dr. Jonsson belongs to the angiocardiography group of Stockholm—considered the first in Europe—known as the Sedersjukhuset group, which includes Professor Sjölin, director of the cardiologic clinic and Professor Crafoord, director of the surgical clinic.

The Sedersjukhuset group uses the following procedure concerning aortography: clinical examination and psychologic preparation of the patient by a cardiologist and exposure and ligation of the artery by a surgeon. Injection of the opaque fluid and other radiologic details are the exclusive task of the radiologist. Professor Crafoord, director of the Surgical Clinic of Stockholm, agrees with Dr. Jonsson that selective angiocardiography and especially thoracic aortography in cases of coarctation represent, if correctly performed, the most useful and most informative method, in that they can provide preoperative and postoperative information about anatomic conditions. It is necessary that one be aware of these conditions before operation, and it is almost as necessary that one know them after operation in order to evaluate the results obtained by the surgeon.

During his conferences at the universities of Naples and Bologna Dr. Jonsson surveyed the most important contributions in the domain of angiocardiography. Forssmann of Vienna, in 1929, was the first to claim that it was not dangerous to carry the catheter into the right auricle and inject a contrast medium there. However, he did not succeed: the cardiac chamber was not visualized, because it is not possible to inject the opaque fluid with a hand syringe with great speed. In 1931, Moniz described a technic which he called pneumoangiography. In order to study the pulmonary vessels, he passed the catheter into the right auricle and injected opaque fluid.

The adequate study of the cardiac chambers and of the great vessels was initiated in 1937 by Castellanos, Garcia and Pereiras. One year later Robb and Steinberg injected the contrast medium directly into the vein of the elbow, to avoid the resistance encountered by the catheter. Rapid serial roentgenograms were made after the injection and the entire intrathoracic circulation was visualized. The automatic seriakograph was invented later, but the method of Robb and Steinberg—which was given recognition by the whole world—is useful in infants and small children, because their vessels are short. But in adults, because of the length of the vessels, the opaque fluid is diluted by the blood. For this reason the Mexicans Chavez, Derbecker and Celis returned to the technic of the catheter with the contrast medium brought directly into the right side of the heart. They succeeded in introducing a larger catheter (12 and 14 gage) into the jugular vein, overcoming thus the resistance to injections. But the two pioneers of surgical treatment for coarctation of the aorta, Crafoord and Gross, admitted that the usual angiocardiographic method did not permit a sufficiently detailed diagnosis. It was then that the Sedersjukhuset group of Stockholm proved that the lack of detail was due to insufficient concentration of the opaque fluid, which was diffused in the course of its long passage before reaching the desired anatomic region, and that, when the opacity had reached its peak of intensity in the aorta, there was still enough opaque fluid left in the pulmonary vessels to obscure the aorta and the collateral circulation.

The Sedersjukhuset group calls its technic selective angiocardiography. The contrast medium, iodopyracet injection, is injected in the catheter only after the catheter tip reaches the vessel or the part of the heart chamber under study by the surgeon. In this way the dispersion of the contrast medium in the course of the circulation is avoided.

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SWITZERLAND

(From a Regular Correspondent)

GENEVA, June 12, 1950.

Meeting of the Swiss Society of Internal Medicine

The meetings of the Swiss Society of Internal Medicine are the most important medical meetings held in Switzerland. The eighteenth congress was held in Neuchâtel from May 5 to May 7, 1950, jointly with the Swiss societies of hematology and cardiology. Dr. Rissel (Wien) emphasized the interesting results obtained with aureomycin in the first period of virus hepatitis. Dr. Ferrero (Geneva) reported observations on the Millon reaction, which is positive in three quarters of the cases of evolutive chronic polyarthritis. The reaction becomes negative after administration of pituitary adrenocorticotropic hormone (ACTH). A study of the metabolic action of ACTH and cortisone was presented by Dr. Mach (Geneva) and co-workers, who demonstrated the retention of water and chlorine, followed by an equivalent elimination, and negative nitrogen and potassium balance followed by hypokaliemia, but without interference with glycoregulation. There does not seem to exist a parallelism between the therapeutic action and the metabolic aspects which have been studied.

Professor Wuhrmann (Zurich) discussed the pathologic elements of myocarditis, as revealed by the recent studies made in proteinemias. The therapeutic point of view was expressed by Dr. Naef (Lausanne), just returned from the United States. He presented a report on the surgical approach to mitral stenosis (commissurotomy).

Q FEVER IN SWITZERLAND

At the same meeting Dr. O. Gsell, director of the medical clinic of St. Gall Cantonal Hospital, gave an interesting lecture on the clinical aspect of Q fever in Switzerland. Dr. Gsell has specialized in virus and leptospira infections. He outlined the epidemiology and the clinical aspects of leptospirosis (disease of young swineherds); his studies are known in all European countries. Dr. Gsell is now at the Federal Hygiene Institute of Washington, D. C.

In Switzerland, Gsell observed 25 cases of Q fever. He based his general review of the disease on the researches of Hubner and co-workers. It is important for physicians to think of Q fever in the differential diagnosis of acute infections without local symptoms. After having determined the beginning of the illness, which is accompanied most frequently with headache and apathy, Gsell shows how resistant Q fever is to sulfonamides and penicillin. The radiologic investigations show a light and soft parenchymatous focus (rough glass) and allow the diagnosis of atypical pneumonia. It is then necessary to determine whether it is primary virus pneumonia, influenza, psittacosis, ornithosis (some cases have just been observed in Geneva) or rickettsiosis. The specific serologic tests will alone give the definitive diagnosis.

The clinical appearance of Q fever may be of four typical forms: 1. The pneumonia form—the infiltrates can be light and soft, massive, miliary or perihilar. 2. The influenza form, only feverish—this form usually escapes diagnosis and will be found only if systematic radiophotographic control of a whole population is made. 3. The meningoencephalitic form, which can often be the essential symptom. Among the complications of Q fever, Gsell points out especially dry or serous pleurisy, thrombophlebitis and pulmonary infarction, orchitis, episcleritis, encephalitis, neuritis, arthritis, intestinal disorders, polyserositis and myocarditis.

The problem of a chronic infection with Q fever is not solved yet, but Italian authors have mentioned the existence, in Sicilia, of a *febricula Burneti*, which lasts for several months with a light feverish state and splenomegaly; in these cases rickettsias were found in blood and urine, and aureomycin therapy brought the temperature to normal.

Q fever diagnosis is made in Switzerland with a strain of rickettsias which was isolated in 1947 and is identical, according to Cox, with the American "nine mile" strain. Gsell calls attention to false positive reactions of complement fixation; he has seen positive reactions in a case of acute leptospirosis and in one case of epidemic poliomyelitis (1:40).

Aureomycin and chloramphenicol seem to be efficient antibiotics against Rickettsia burneti. Gsell has obtained quick results with aureomycin (0.13 Gm. a day) without secondary reactions, not even the classic complications of Q fever.

After having mentioned the interesting results of the experiments made by Blanc and co-workers in Algeria, Gsell pointed out the different possibilities of infection with Rickettsia burneti. Finally, Gsell dealt with the epidemiology of Q fever. He recalled the researches of Caminopetros and Hubner on the presence of rickettsia in the milk of goats, sheep and cows. In Switzerland, Kilchsperger and Wiesmann have shown the existence of an epidemic of abortion in goats caused by Rickettsia burneti.

Gsell shows that in Switzerland inhalation of dusts laden with rickettsias must be causative in Q fever.

Control of Tuberculosis in Switzerland

In April 1950 the Swiss Antituberculosis Association held a meeting in Basel. Dr. Maurice Gilbert (Geneva) determined the place which should be taken by roentgenographic investigations in case finding. He has shown that they alone cannot control tuberculosis. Investigation of relatives of patients is important. Even then radiologic investigations are not sufficient; there must be added clinical search and laboratory investigation. Professor Löffler (Zurich), whose studies on the syndrome of pulmonary eosinophilia are well known, supported Dr. Gilbert's views.

In Switzerland therapeutic progress is more rapid than preventive measures. The Swiss population refused, last year, control of preventive measures by the state, so that private societies are in charge of this control. They are trying to follow the example of the Scandinavian countries, where spectacular results have been obtained.

PRINCIPALITY OF MONACO

(From a Special Correspondent)

May 27, 1950.

Documentation of Military Medicine

The thirteenth session of the International Office of Documentation of Military Medicine was held in Monaco under the sponsorship of His Highness Prince Rainier III. As in all these annual sessions, on the agenda were a series of papers on medicomilitary technics. This year, however, a special activity had been assigned to this assembly. On the occasion of a meeting of a committee of experts in Monaco, which had been called by the Prince Sovereign last February, a plan was drawn up for a World Code of Medicine. This memorandum had been presented, for the first time, to an international meeting of physicians, whose president commented, "It is an honor for the military physicians to have been the first ones called on to analyze the problems of medical ethics."

The most important papers included:

1. Protection against atomic, bacteriologic and chemical warfare, the so-called A.B.C. war. Major Greppin said, "Science appears to be today the most essential of war activities in peacetime, and, unfortunately, the physician is already involved in this organization." Vigilance is required to prevent this degradation of medicine. However, the problem of protection is of special concern, and for this reason there must be devised a well thought out organization, according to Drs. Greppin and Glorieux, who based the entire first aid plan in case of an all-out bombing attack on the removal of the wounded, on the dispersal of the first aid stations and on the coordination among

neighboring medical aid groups. It is necessary to stockpile food and water safe from the danger of radiations.

The physicians of the whole world should unite against the use of bacteriologic warfare.

2. Examination of the new Conventions of Geneva. Chief Surgeon Puyo explained the advantages and the shortcomings of the new texts and demonstrated that the Diplomatic Conference at Geneva attained the goals which it had set for itself, namely, (*a*) reinforcement of the protection of the victims of war, (*b*) adaptation of it to the conditions of modern warfare and (*c*) extension to new categories of persons.

If this work for the humanization of war has been of any benefit, it has been due to the common effort of all the governmental and private organizations, national or international, which have participated, especially the International Committee of the Red Cross, which was the driving force, and the International Office of Military Medicine, which greatly contributed to the preparatory work.

The task is not finished, however. Complementary agreements must be drawn up especially concerning the release of captured medical personnel. This question of the release of captive medical personnel has been the object of a rather important exchange of views. It has to be settled by agreement between belligerent nations. To this end, the draft of an accord has been proposed at Geneva, without, however, determining the methods of application. To facilitate this procedure, the International Office of Documentation of Military Medicine has been assigned, on a motion by the International Committee of the Red Cross, to start an international inquiry to determine the forms of applying this measure. This investigation is at present in progress.

3. Identification of medical personnel and international insignia. General des Cilleuls of the Medical Corps proposed that the medical passbook, which should serve as identification in time of war for all members of the Medical Services, should have on one of its leaves the text of the oath of Hippocrates, which should be signed by every physician.

Thus the physician will be bound, even in the absence of a preestablished code, by the obligation of respecting all the existing humanitarian conventions and by the superior principles of medical ethics. Besides this question, it has been proposed by General Bercher and Colonel Hassenforder that the entire personnel of the Health Services of the world be given a uniform, internationally recognized insignia to be added to the national insignia. This proposition stresses in a real and objective manner the spirit of brotherhood which should continue to exist among all members of the medical profession even in the midst of conflicts, a fact which the International Committee of Military Medicine has so often emphasized. Apart from the advantage that physicians would derive from being able to identify themselves universally, a strengthening of the protection granted them would result.

4. Antibiotics in the field. Colonel Talbot and Major Molinier made a detailed study of this question from the surgical and medical point of view. This study ended with the following conclusions in the form of a resolution:

"The thirteenth session of the International Office of Documentation of Military Medicine demands that a study should be prepared for a next congress concerning: (*a*) antibiotics as primary prophylaxis against infections in war wounds in the front lines. This primary prophylaxis must be systematic and early, as polyvalent as possible and in a standardized form accepted by all surgeons. (*b*) Antibiotic therapy in the surgical station. This systematic therapy employs agents adapted to the causative organisms (streptomycin against colon bacilli, for instance).

"This prophylaxis by means of antibiotics undoubtedly improves the results. Although it provides additional security, it does not authorize the deliberate disregard of the rules established for the surgery in forward echelons. In the light of new condition created in the therapeutic field by introduction of the antibiotics, it should be analyzed as to what are the surgical rules to be prescribed for every surgeon called on to work in the front lines."

5. Treatment of burns. This subject has been especially studied by General Bergeret.

6. The Training of Military Physicians, by General Dutrey.

7. Commission for the Study of Medical Equipment. Dr. Gloor, vice president of the International Committee of the Red Cross, made a report concerning the resumption of activities of the International Committee of Study on medical equipment. He asked that the International Committee of Military Medicine continue, as in the past, to support these investigations and said that it should obtain the cooperation of the Health Services of the Armies.

8. Toward a World Medical Code. The study of a project which was drafted in Monaco in February 1950 by a Commission of Physicians and Jurists was resumed. After a proposal by Dr. R. R. Debray, on behalf of the National Organization of Physicians of France, who insisted on the importance of the comparative medical law as the basis for the creation of an International Medical Code, the following resolution was passed unanimously:

The delegates at the thirteenth session of the International Office of Military Medicine assembled in Monaco, May 3 to 7, 1950, joined by the Federated Unions of Physicians of the Reserve of France, Belgium, Luxembourg and the Netherlands, the National Organization of Physicians of France, Belgium and Monaco, the representatives of the World Medical Association, in presence of the delegation of the International Committee of the Red Cross and of the League of the Red Cross Societies, declare themselves in agreement by proclaiming the existence of principles of moral law which should govern the practice of the medical profession in peacetime as well as in times of war, and consequently they consider it a matter of immediate interest (1) to organize the teaching and dissemination of these principles; (2) to realize an effective work of codification of an International Medical Law, on the basis of the existing texts, especially on the Conventions of Geneva and the preliminary project of Monaco; (3) to appeal to the international organizations that, within the range of their influence with governments and public opinion, they obtain its passage, and (4) to recommend the study of comparative medical law in order to assist in the formulation and development of a World Medical Law.

MADRID

(From a Correspondent)

May 8, 1950.

Congress of Gastroenterology

The first international Congress of Gastrologic Associations of various European countries was held at Lausanne in 1948. The second congress of the same associations was held in Madrid May 3-6, 1950. The official topic was "diseases of the biliary tract, except lithiasis and cancer." The Minister of the Interior presided at the inaugural session, at which more than 600 gastroenterologists from Spain and other European countries were present. Drs. Heliodoro G. Mogena, Oliver Pascual and Gutierrez Arrese were president, vice president and general secretary, respectively, of the Committee on Organization and of the congress. Other members of this committee were Drs. Arias Vellejo, Villalobos and Bueno y Yague. The Minister of National Education of Spain was president of the last session of the congress, on May 6, 1950. The third congress will be held in Italy in 1952. The official topics will be diseases of the pancreas and constipation.

DENMARK

(From a Regular Correspondent)

COPENHAGEN, June 23, 1950.

Legal Induction of Abortion

The limits within which abortion may be induced in Denmark are set with the greatest care. At the Maternity Department of the Rigshospital in Copenhagen (chief: Prof. Ebbe Brandstrup) Dr. Dyre Trolle has undertaken an analytic study of legal induction of abortion carried out on 566 women in the years 1942 through 1948. Their ages ranged from 14 to 49. Most of them (62.4 per cent) were married. The unmarried represented 27 per cent, the divorced 8.3 per cent and widows 2.3 per cent. This percentage distribution—married, unmarried, divorced or widowed—remained remarkably constant from year to year.

In several cases the indications for the induction of abortion were multiple. When this was so, only the most important of them was taken into account in the following classification, showing the relative frequency of the various indications: (1) psychogenic mental depression, 52.7 per cent; (2) medical indications, 20.3 per cent; (3) eugenic indications, 10.8 per cent; (4) medical-social indications, 13.8 per cent, and (5) ethical indications, 2.4 per cent. The ethical indications consisted of rape in 7 cases, incest in 1 and under the age of 15 in 6—a total of 14 cases. It is noteworthy that all 8 cases of rape and incest concerned unmarried women.

In 35 cases, legal abortion had been induced on an earlier occasion. Of the 153 unmarried women, as great a proportion as 83 per cent had not been confined previously. There were only 14 women who underwent a sterilizing operation at the time that abortion was induced. Dr. Trolle points out that at his hospital the indications for inducing abortion and for a sterilizing operation are sharply differentiated, and the patient is never promised induced abortion on the condition that she also submit to a sterilizing operation. None of the 566 cases ended fatally. In nearly every case full narcosis was induced, usually with hexobarbital soluble, alone or with ether. One of the most important conclusions drawn from this study is that the legal induction of abortion is often unnecessarily delayed until pregnancy is far advanced.

Venereal Diseases in Denmark, 1900-1948

The incidence of venereal diseases in Denmark from the beginning of this century to 1948 was recently studied by Dr. Harald Boas. The figures for the first 18 years of this century are not accurate, because of duplication of notifications, but since 1918 this source of error has been eliminated. At the end of World War I the standard treatment for syphilis consisted of the vigorous administration of arsphenamine and mercury, the latter being subsequently replaced by bismuth. The results of this treatment were most promising. In 1919 there were 4,307 notifications of acquired syphilis; in 1938 this figure was reduced to 470. With the introduction of sulfonamide therapy there was a noteworthy decline in the incidence of gonorrhea, 14,507 cases in 1919 and 7,803 in 1940.

With the occupation of Denmark in 1940 by the Germans, there seemed at first to be no great change in the incidence of the venereal disease, but during the last two years of this war there was an enormous increase. In 1944, after the return of Danish soldiers from Germany, the incidence of syphilis was nine times the incidence in 1938—4,053 cases as compared with 470. The increase was only threefold for gonorrhea between 1940 and 1945, the incidence in these two years being 7,803 and 23,222, respectively. Because of prophylactic treatment with arsphenamine and bismuth, the incidence of congenital syphilis remained comparatively low during and after World War II, but the figures for acquired syphilis remain disquieting, the incidence in 1948 being four times that in 1938.

Ulcer of the Body of the Stomach

Dr. H. H. Seedorff of the Sundby Hospital made a follow-up study of patients treated in this hospital in the period 1933-1944. In a report of his findings in the organ of the Danish Medical Association, *Ugeskrift for Laeger*, May 18, he points out that his figures seem to support the belief that, though cancers of the stomach ulcerate, ulcers of the body of the stomach do not become cancerous, which accords with results of recent investigations in the United States. In the period under review there were 231 patients whose gastric disease was diagnosed as cancer on the strength of the radiologic evidence. The diagnosis was confirmed in 103 cases by postmortem examination. It is possible that some of the diagnoses of cancer not thus confirmed were mistaken. In as many as 178 cases (77.1 per cent) there was no history of dyspeptic symptoms before the question of cancer was raised. In each of 26 other cases (11.3 per cent) there had been some dyspeptic symptoms of some duration, but they had not been troublesome enough to induce the patient to consult a doctor.

In the same period 78 patients were treated in the hospital for ulcer of the body of the stomach. A follow-up study of these patients showed that only 4 had died of cancer of the stomach verified by a postmortem examination. Eight had died of various diseases not concerned with the stomach, and 10 had died after suffering from melena or cachexia. Eight patients were still alive but could not be reached. The remaining 48 patients presented no symptoms indicative of malignant disease. Seedorff studied the aforementioned 4 cases in which cancer of the stomach was discovered postmortem, after hospital treatment for gastric ulcer. It was characteristic of all these cases that the signs and symptoms taken to indicate gastric ulcer were of comparatively short duration—hence the suspicion that the diagnosis of gastric ulcer was mistaken and that the disease from which these patients suffered was malignant from the outset.

BRAZIL

(From a Regular Correspondent)

RIO DE JANEIRO, June 20, 1950.

Leukocyte Count in Pathergic Diseases

To stress the importance of the leukocyte count for identification of pathergic diseases, Dr. Orlano H. da Franca, allergist of the Department of Education, City of São Paulo, reported a study of 100 patients with the following diseases: 9 bronchial asthma, 40 dermatitis, 1 edema, 5 migraine, 1 glossitis, 1 maculas, 2 pruritus, 3 purpura, 1 cheilitis, 15 rhinitis, 1 roseola and 21 urticaria. Neutropenia was observed in 64 per cent of the patients, leukopenia in 60 per cent and eosinophilia in 52 per cent. There was no difference in the general leukocyte picture of the patients with intestinal parasites (56 per cent) and those without parasites: in both cases there was neutropenia with or without deviation. Neutropenia without deviation was more frequent (29.7 per cent) than neutropenia with deviation either to the right (20.1 per cent) or to the left (14.6 per cent). Usually, neutropenia and leukopenia were associated. Eosinophilia and parasitosis were irregularly associated: there was eosinophilia in pathergic patients either with parasites (30 per cent) or without parasites (22 per cent), and there were also pathergic patients with parasites but without eosinophilia (26 per cent). Eosinophilia was more frequent in chronic than in acute diseases, in the former followed by leukocytosis and in the latter by leukopenia. In Dr. Franca's opinion, the leukocyte count may aid in recognition of pathergic diseases among all illnesses but offers no help in distinguishing these diseases etiologically or specifically.

Death of Dr. Vital Brasil

Dr. Vital Brasil, retired director of the Butantan Institute, São Paulo, died recently at the age of 85. Through many years of active professional life, Dr. Vital Brasil made the Butantan Institute well known as the largest and best laboratory for the preparation of antivenom snake serums. He was the greatest authority in this very special field of medicine. In 1897, as an assistant at the São Paulo Bacteriological Laboratory, Dr. Brasil began to study snake venoms and was able to demonstrate, for the first time, that there were two entirely different types of snake venoms. Samples of serums prepared in France by Calmette, with venom from Asiatic snakes, were found to be ineffective against the venom of South American snakes. In 1901 the Butantan Institute was founded as an independent branch of the Bacteriological Laboratory for the study of venoms and the preparation of antiserums and was put under the direction of Dr. Brasil. For many years the institute has trained specialists, studied snakes and prepared serums. Its specific anticrotalic and antibothropic serums, as well as its polyvalent antiophidic serum, became well known and extensively used throughout the American countries. In 1915 Dr. Vital Brasil, then in the United States for a Pan-American Scientific Congress held at Washington, D. C., was able to save the life of a worker of the Bronx Park in New York who was dying from a bite of a Texas Crotalus atrox snake. As Calmette's serum was demonstrated to be ineffective on the patient, Dr. Vital Brasil tried with spectacular success a sample of Butantan serum. In 1919, after his retirement from Butantan, Dr. Brasil founded in Niteroi, state of Rio de Janeiro, the Vital Brasil Institute, which became a great private laboratory for the preparation of many kinds of biologic preventive and curative material. Dr. Vital Brasil's death was the occasion for many demonstrations honoring this great figure in Brazilian medicine.

COLOMBIA

(From a Regular Correspondent)

Bogotá, June 16, 1950.

Criticism of Social Security System

The National Academy of Medicine studied legal decree no. 3,850 dated Dec. 5, 1949, which modifies Law no. 90 of 1946 establishing the Colombian Institute of Social Security. Serious objections were made against application of the system of social security in Colombia. The following conclusions were presented by Prof. José Vicente Huertas and approved by the Academy: 1. Social security as a system of public service and of social justice should have not only official but also popular support. 2. The manner in which its application is being planned in Colombia constitutes an attempt against individual and professional freedom and against the natural right of any person to chose the means he considers adequate for the preservation of his health and life. 3. The application of social security by such procedures creates blind submission to artificial methods and to formulas inadequate for social relationship, which will result in the state's encroaching on the essential rights of the individual. By ignoring the fundamentals of the natural law, the state will become totalitarian in this aspect of public life. 4. Moreover, it converts a liberal profession like medicine into a business for speculation and personal profit instead of for the benefit of the society which it serves. 5. It hampers rather than stimulates private initiative by creating unfair competition, having at its disposal all those facilities which are denied to the citizen in the pursuit of his professional or industrial activities. 6. It is an outgrowth of the socialism of the extreme left instead of the development of democracy and republican organization. 7. It offers a temptation for profit-seeking; a helpless medical profession is being promised apparent economic advantages at the expense of the scientific and moral standards from which it should take its norm and direction. 8. The suspension of Articles 74 and 75 of Law no. 90 (which exempt the large industrial enterprises from affiliation with the Colombian Institute of Social Security) is a policy which restrains the liberty established by that law. 9. The acquisition of clinics and hospitals by the social security system converts the medical profession into a bureaucracy and the physician into a public employee. A phenomenon of purely mechanical assistance results from assigning patients to physicians and physicians to patients, abolishing the freedom of choice, contrary to every rule of natural law. It assumes the control not only of the medical profession but of public and private hospitals as well, and later it will take over other functions such as the production of drugs. 10. Under this system the physicians are responsible first to the politicians and afterward to their own patients. 11. The concurrence of the state in this field is analogous to that of the state in education in its effect on freedom; in this case it would imply the establishment of an official monopoly that is inimical to the progress and development of private initiative, which should really be promoted. 12. Social security as a welfare institution will not be able to progress without the cooperation of the medical profession, since it is based on a concept quite different from the one intended. 13. This form of social security infringes on professional secrecy, abolishes the family physician and makes the private health record a public record. 14. Social security must be managed and administered as a public service dealing with health, not like an enterprise or industry for profit and speculation.

Convention of Gastroenterologists

The second National Convention of Gastroenterology held in Medellín May 25-27 was attended by delegates of the Colombian government, scientific societies and hospitals. Also represented were the faculties of medicine, the Society of Surgery of Bogotá, the National Police Board of Health and the Inter-American Cooperative Service of Public Health. Sixty specialists from the following cities were present: Bogotá, Medellín, Cali, Bucaramanga and Pereira. The inaugural session was held at the headquarters of the Faculty of Medicine of Medellín. The president of the National Association of Gastroenterology, Dr. José A. Lácome Valderrama, opened the convention. The official topic was amebiasis. Drs. A. Albornoz Plata, A. Bonilla Naar, A. Corera Henao, L. E. Plata Esguerra, J. Castro Duque, P. P. Peláez, N. Lega, A. Jaramillo Arango, E. Villa Haeusler, M. Olaya Restrerpo, D. Velásquez, L. C. Uribe and C. Camacho were official speakers.

During the second part of the convention the following papers were read: "Varices of the Esophagus," Dr. P. H. Vallejo, Bogotá; "Perforation of the Esophagus," Dr. A. Bonilla Naar, Bogotá; "Digestive Radiology," Dr. A. Campo Posada, Bogotá; "Early Radiologic Signs of Ulcerative Disease of the Duodenum," Dr. J. Yepes Cadavid, Medellín; "Pancreatic Lithiasis," Dr. B. Umaña de Brigard, Bogotá; "Total Transthoracic Gastrectomy," Dr. I. Gil Sánchez, Medellín; "Idiopathic Ulcerative Colitis," Dr. L. Vélez Escober, Medellín; "Bacillary Dysentery (Shigella Dysenteriae)," Dr. H. Groot, Bogotá; "Chordotomy and the Mechanism of Abdominal Pain," Dr. L. C. Posada González, Medellín, and "Physiopathology of Vomiting," Dr. A. Ramírez González, Medellín.

In the closing session a new board of directors for the next year was elected. Dr. I. Vélez Escober became president, Drs. J. A. Jácome Valderrama and E. Andrade Valderrama vice presidents and Dr. C. E. Camacho, secretary general. Radiologic demonstrations of the digestive tract were made during the convention at the Radiologic Institute San Rafael of Medellín, and surgical operations were performed at the Hospital San Vicente. The first volume of the papers on gastroenterology, presented at last year's meeting, was distributed. The third National Convention of Gastroenterology will be held at Bucaramanga in May 1951.

CORRESPONDENCE

DIABETES MELLITUS AND LIPOTROPIC THERAPY

To the Editor:—The method of treatment of diabetes accredited to us has been the subject of a report in the April 15 issue of THE JOURNAL in an article by Dr. Edwin W. Gates. It seems that Dr. Gates has misinterpreted the title of our original article which reads: "The Role of Choline Chloride in the Treatment of Certain Cases of Diabetes Mellitus" (*New York State J. Med.* **48**:523 [March] 1948). The type of patient for whom we have reserved this treatment is in the minority, certainly not exceeding, in our opinion, more than 15 or 20 per cent of all diabetics. The use of insulin is still the sheet anchor in the treatment of the great majority of all diabetics, in our hands, as well as in those of Dr. Gates. However, the time has come when it is of some importance to make a differential diagnosis of diabetes; in other words, we must realize that diabetes has many causes. By far the most common is insulin deficiency. This is the situation that exists in practically all juvenile diabetes and in many of those of middle age. For these, insulin is the only therapy that we have at the present time. We must exclude the "diabetes" associated with hyperthyroidism, the "diabetes" of acromegaly, the "diabetes" associated with Cushing's syndrome, which is apparently due to overproduction of 17-hydroxy-11-dehydrocorticosterone, and the "diabetes" associated with pheochromocytoma. The last four types are small in number and are not of much concern at present. The "diabetes" in these latter conditions also respond to insulin, but if the causal condition is remedied, one may hope to cure the "diabetes."

The most difficult differential diagnosis to make is between "insulin deficiency diabetes" and "liver dysfunction diabetes." It is the latter type only which will be benefited by choline, and this we have tried to show in our paper. We frankly admitted that we have no certain method of differentiating the two types. Thus, in clinical consideration of 100 diabetics as given in Dr. Gates' articles, the great majority would have "insulin deficiency diabetes" and not "liver dysfunction diabetes." We agree with Dr. Gates that most or all of these would require insulin in their treatment; thus there is no argument at all. On clinical grounds alone, we have attempted to differentiate "insulin deficient" patients and "liver dysfunction" patients. The "insulin deficient" patients are usually the ones in whom diabetes developed in youth; they are often first seen in diabetic ketosis, their diabetes is severe and they must pay strict attention to diet and insulin or ketosis will develop. The "liver dysfunction" diabetic usually first learns of his affliction accidentally, when sugar is found in his urine during a routine physical examination; it usually is discovered in the fourth or fifth decade of life, and the disease is rarely severe. This type of patient usually is asymptomatic and slightly overweight and rarely if ever goes into diabetic acidosis or coma, although he may go merrily on, spilling large amounts of sugar and paying little attention to diet. The liver may or may not be palpable.

We cannot lay claim to being the first to treat "liver dysfunction diabetes" with choline. This was done by Dr. Samuel J. Taub and his co-workers from Cook County Hospital (*Ann. Int. Med.* **22**:852, 1945). The results of these authors in a large series of cases closely paralleled ours. There have been many other articles describing liver dysfunction in diabetes mellitus (Gray, J.; Hook, W., and Batty, J. L.: *Ann. Int. Med.* **24**:72, 1946; Soskin, S., and Levine, A. L.: Carbohydrate Metabolism, Chicago, Chicago Univ. Press, 1946; Meyer, E. L.: *Arch. Int. Med.* **47**:182, 1931; Rabinowitch, I. M.: *Brit. J. Exper. Path.* **17**:249, 1936; Leevy, C. M.; Ryan, C. M., and Fineberg, J. C.: *Am. J. Med.* **8**:290 [March] 1950). It is true that in all the cases cited the diabetes was not caused by liver dysfunction, but perhaps the diabetes itself resulted in liver damage, much the same as in Best's depancreatized dogs. The most recent article is by Carroll M. Leevy and his co-workers in the *American Journal of Medicine*. His conclusions are interesting. Of 380 patients with diabetes 38.9 per cent were found to have evidence of liver dysfunction by standard laboratory tests. In 11 patients of their series in which the hepatic disease was believed to be the cause of the hyperglycemia with glycosuria, hepatic (lipotropic) therapy without insulin resulted in improvement of the hepatic dysfunction and of the carbohydrate disturbance. Of 35 clinic patients with liver dysfunction secondary to diabetes, the hepatic abnormality and carbohydrate tolerance improved with lipotropic therapy and insulin in 30 patients. Thus in diabetes due to insulin deficiency, insulin must be given and is really the only remedial therapy.

We cannot assume, as Dr. Gates has done with respect to our article, that all diabetics in the middle age group will respond to lipotropic therapy. We quote the conclusions in the article criticized by Dr. Gates: "We want to emphasize that choline chloride is not a substitute for insulin, but has been of aid in the management of certain cases of diabetes. A method of selecting cases which might respond would be of aid, but so far none is available." Certainly, these modest conclusions would not be expected to stand up in a routine series of diabetic patients in which the large majority have insulin deficiency. Insulin deficiency requires insulin therapy. We have no argument with Dr. Gates on this point. If the lipotropic agents are of any value in insulin deficiency, they are merely for the treatment of a secondary liver deficiency that may occur, just as it does in depancreatized dogs.

We are not now using choline chloride, but rather choline dihydrogen citrate. The latter is more palatable and can be given in capsules, 7½ grains (0.48 Gm.), or tablets, 10 grains (0.65 Gm.). We use 4 to 6 capsules or tablets daily. This dose is appreciably smaller than that previously used. Although we never observed peripheral edema in our patients, it is conceivable that this might occur, as a result of the formation by acetylation of acetyl-choline, which is a vasodilator and by increasing permeability may produce edema. Although none of our patients have experienced diarrhea, this is also a possibility because of the formation of acetylcholine when large amounts of choline are given. A little atropine will probably suffice to offset this complication if it is found to be present.

Our most important objection to Dr. Gates' article is that he imputes to our study certain premises that we have never claimed and then proceeds with a statistical study to disprove these claims.

LOUIS PELNER, M.D.,
SAMUEL WALDMAN, M.D., Brooklyn.

PHEOCHROMOCYTOMA AND HYPERTENSION

To the Editor:—In the editorial "Pheochromocytoma and Hypertension" (J. A. M. A. **143**: 183 [May 13] 1950) there is no mention of one important diagnostic contribution described in recent ophthalmologic literature. Extensive changes in the appearance of the retinas, characterized by alterations in the caliber and appearance of the vessels, with many flame-shaped hemorrhages, and numerous patches of "cotton wool exudate" comprise a picture which cannot be missed if looked for. Surprisingly enough, after surgical removal of the medullary growth these disappear to a large extent within the postoperative year.

Since so many younger men are being trained in the use of the ophthalmoscope, it would seem that this contribution from ophthalmology should have found a place in your diagnostic summary.

THOMAS G. HALL, San Francisco.

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Drunkenness: Admissibility in Evidence as Result of Chemical Tests for Intoxication.—The defendant was convicted of operating a motor vehicle while under the influence of intoxicating liquor and he appealed to the court of appeals of Ohio, Franklin County.

The principal error assigned, said the court of appeals, relates to the admission of evidence of a urinalysis and the testimony of the chemist in answer to a hypothetic question that a person having the percentage of alcohol found in the defendant's urine is definitely under the influence of alcohol and an unsafe driver. The defendant contends that the specimen of urine was taken in violation of his constitutional rights. The evidence discloses that the specimen was given by the defendant voluntarily but the defendant was not warned that the results of the analysis would be used against him. There is no evidence of compulsion or deceit incident to the taking of the specimen. No error, therefore, intervened incident to the admission of evidence of the result of the test, if otherwise admissible. Was evidence of the result of the urinalysis admissible? asked the court of appeals.

The witness was well qualified by education and experience. The specimen was clearly identified as that given by the defendant the evening of the accident and analyzed the following morning. The witness testified that it contained 0.28 per cent alcohol. He gave as his opinion that persons with less than 0.05 per cent alcohol are not under the influence thereof but that a person with 0.15 per cent is definitely under the influence of alcohol and an unsafe driver. In answer to another hypothetic question, the witness testified that in his opinion a person with 0.28 per cent alcohol in his urine is definitely under the influence of alcohol and is an unsafe driver. Possibly the conclusion that such a person is an unsafe driver is improper, but objection was not made on that ground. No officially reported case in Ohio on the subject has come to our attention, but, from the great weight of authority outside Ohio, it is apparent that evidence as to the obtaining of a specimen of body fluid at or near the time in question, evidence as to the alcoholic content thereof as determined by scientific analysis and expert opinion testimony as to what the presence of an ascertained amount of alcohol in the urine, blood or other body fluid of a person indicates with regard to such person's sobriety or intoxication, are ordinarily admissible as relevant and competent, where the accused submits without objection to the taking of the specimen. But the weight of the opinions of such experts is, of course, for the trier of the facts to be considered together with the other evidence in the case. The assignment of error that the defendant was prejudiced by the admission of the testimony relating to the analysis, said the court of appeals, is not well taken, and the conviction of the defendant was affirmed.—*City of Columbus v. Van Meter, 89 N. E. (2d) 703 (Ohio, 1949).*

Medical Examinations and Licensure

COMING EXAMINATIONS AND MEETINGS

EXAMINING BOARDS IN SPECIALTIES

AMERICAN BOARD OF ANESTHESIOLOGY: *Written.* Various locations July 21. *Oral.* Chicago, Oct. 8-11. Sec., Dr. Curtiss B. Hickcox, 745 Fifth Ave., New York 22.

AMERICAN BOARD OF DERMATOLOGY AND SYPHILOLOGY: *Written.* Various locations, Sept. 14. *Oral.* Detroit, Oct. 20-22. Sec., Dr. George M. Lewis, 66 East 66th St., New York 21.

AMERICAN BOARD OF INTERNAL MEDICINE: *Written.* Oct. 16. Asst. Sec., Dr. William A. Werrell, 1 West Main Street, Madison 3, Wis.

AMERICAN BOARD OF NEUROLOGICAL SURGERY: Chicago, Oct. 1950. Applications no longer accepted. Sec., Dr. W. J. German, 789 Howard Ave., New Haven, Conn.

AMERICAN BOARD OF OPHTHALMOLOGY: *Written.* Various Centers Jan. 5-6, 1951. San Francisco, March 11-15; New York, May 31-June 4. Sec., Dr. Edwin B. Dunphy, 56 Ivie Road, Cape Cottage, Maine.

AMERICAN BOARD OF ORTHOPAEDIC SURGERY: *Part II.* Chicago, Jan. 25-26. Final date for filing applications is Aug. 15, 1950. Sec., Dr. Harold A. Sofield, 122 South Michigan Avenue, Chicago 3.

AMERICAN BOARD OF OTOLARYNGOLOGY: Chicago, October. Sec., Dr Dean M. Lierle, University Hospital, Iowa City.

AMERICAN BOARD OF PATHOLOGY: St. Louis, Oct. 13-14. Sec., Dr. Robert R. Moore, 307 Euclid Ave., St. Louis 10.

AMERICAN BOARD OF PEDIATRICS: *Oral.* Chicago, Oct. 13-15 and Boston, Dec. 1-3. Exec. Sec., Dr. John McK. Mitchell, 6 Cushman Road, Rosemont, Pa.

AMERICAN BOARD OF PHYSICAL MEDICINE AND REHABILITATION: *Oral and Written.* Boston, Aug. 26-27. Final date for filing applications is April 1. Sec., Dr. Robert L. Bennett, 30 N. Michigan Ave., Chicago.

AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY: Next examination, December 1950. Final date for filing applications is Sept. 1.

AMERICAN BOARD OF SURGERY: *Written.* Various centers, Oct. 25 Final date for filing applications is July 1. Sec., Dr. J. Stewart Rodman, 225 South 15th Street, Philadelphia.

AMERICAN BOARD OF UROLOGY: Chicago, Feb. 10-14, 1951. Final date for filing applications is Sept. 1, 1950. Sec., Dr. Harry Culver, 7935 Sunnyside Road, Minneapolis 21.

BOARDS OF MEDICAL EXAMINERS

ALASKA: * Juneau, Sept. 5. Special examinations given on application Sec., Dr. W. M. Whitehead, Box 140, Juneau.

ARIZONA: * Phoenix, July 22. Sec., Dr. J. H. Patterson, 316 W. McDowell Road, Phoenix.

CALIFORNIA: *Examination, Written.* Los Angeles, Aug 21-24; Sacramento, Oct. 16-19. *Examination, Oral and Clinical for Foreign Medical School Graduates.* Los Angeles, Aug. 20; San Francisco, Nov. 12. *Reciprocity, Oral Examination.* Los Angeles, Aug. 19; San Francisco, Nov. 11. Sec., Dr. Frederick N. Scatena, 1020 N Street, Sacramento 14.

DELAWARE: *Examination.* Dover, July 11-13. *Reciprocity.* Dover, July 20. Sec., Dr. J. S. McDaniel, 229 S. State St., Dover.

NEVADA: *Endorsement.* Carson City, August 7. Sec., Dr. George H. Ross, 112 Curry Street, Carson City.

NEW HAMPSHIRE: Concord, Sept. 13. Sec., Dr. John Samuel Wheeler, 107 State House, Concord.

NEW MEXICO: * Santa Fe, Oct. 9-10. Sec., Dr. Charles J. McGoey, Coronado Building, Santa Fe.

OREGON: * *Examination.* Portland, July 6-8. *Endorsement,* Portland, July 28-29. Sec., Mr. Howard I. Babbitt, 609 Failing Building, Portland.

PUERTO RICO: *Examination.* Santurce, Sept. 5. Sec., Mr. Luis Cueto Coll, Box 3717, Santurce.

SOUTH DAKOTA: * Sioux Falls, July 18-19. Sec., Dr. C. E. Sherwood, 300 First National Bank Bldg., Sioux Falls.

WASHINGTON: * Seattle, July 17-19. Director, Department of Licenses, Mr. Edward C. Dohm, Olympia.

* Basic Science Certificate required.

BOARDS OF EXAMINERS IN THE BASIC SCIENCES

ALASKA: *Examination.* Juneau, last week in August. Sec., Dr. C. Earl Albrecht, Box 1931, Juneau.

COLORADO: *Examination.* Denver, Sept. 13-14. Sec., Dr. Esther B. Starks, 1459 Ogden St., Denver 3.

FLORIDA: Jacksonville, Nov. 11. Sec., Mr. M. W. Emmel, University of Florida, Gainesville.

MICHIGAN: *Examination.* Ann Arbor, Oct. 13-14. Sec., Miss Eloise LeBeau, 101 North Walnut Street, Lansing 13.

NEBRASKA: *Examination.* Omaha, Oct. 3-4. Director, Mr. Oscar F. Humble, Room 1009, State Capitol Building, Lincoln 9.

NEW MEXICO: *Examination.* Santa Fe, Sept. 17. Sec., Mrs. Marguerite K. Cantrell, Box 1522, Santa Fe.

OKLAHOMA: *Examination.* Oklahoma City, Sept. 15. Sec., Dr. Clinton Gallaher, 813 Braniff Building, Oklahoma City.

RHODE ISLAND: *Examination.* Providence, August 9. Chief, Division of Professional Regulation, Mr. Thomas B. Casey, 366 State Office Building, Providence.

TEXAS: *Examination.* Austin, October. Sec., Brother Raphael Wilson, 306 Nalle Building, Austin.

CURRENT MEDICAL LITERATURE

AMERICAN

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Titles marked with an asterisk (*) are abstracted below.

American Heart Journal, St. Louis

39:321-476 (March) 1950

Erythrocyte Sedimentation Rate in Human Subjects Receiving Dicumarol. J. Hyman and R. Harris.—p. 321.
Significance of Reference of Anginal Pain to Right or Left Side of Body. R. Wyburn-Mason.—p. 323.
*Tetraethylammonium Chloride in Treatment of Angina Pectoris. W. J. Atkinson Jr.—p. 336.
Effects of Aging Process on Acid-Soluble Phosphorus Compounds in Myocardium of Rats. G. G. Casten.—p. 353.
Transient Ventricular Fibrillation: III. Effects of Bodily Rest, Atrophine Sulfate and Exercise on Patients with Transient Ventricular Fibrillation During Established Auriculoventricular Dissociation. Study of Influence of Extrinsic Nerves on Idioventricular Pacemaker of Heart. S. P. Schwartz and N. de Sola Pool.—p. 361.
Relationship Between Intrinsic Deflection and Subepicardial Activation: Experimental Study. D. Sodi-Pallares, E. Barbato and A. Delmar. —p. 387.
*Residual Blood of Heart: Clinical X-Ray and Pathologico-Anatomical Study. C.-E. Friedman.—p. 397.
Incidence of Cardiac Enlargement in Nondisabling Rheumatic Valvulitis. A. L. Bachman.—p. 405.
Digital Blood Pressure: I. Values in Normal Subjects. J. C. Weaver and D. F. Bohr.—p. 413.
Id.: II. Brachial-to-Digital Systolic Pressure Gradient in Hyperthyroidism. J. C. Weaver and D. F. Bohr.—p. 423.
Lead Poisoning: IX. Failure of Lead Poisoning to Affect Heart and Blood Vessels. I. Greenfield and I. Gray.—p. 430.

Tetraethylammonium Chloride in Angina Pectoris.—Atkinson treated 18 of 28 patients with angina pectoris with tetraethylammonium for six to 20 months. The patients were stabilized with accepted medicaments, such as phenobarbital, nitroglycerin and, whenever indicated, digitalis and ammonium chloride. Each patient was evaluated for several months; tetraethylammonium chloride therapy was then begun as an additional measure. Twenty-five patients showed symptomatic improvement, as judged by a decrease in anginal attacks and by an increase in exercise tolerance. Psychogenic effects of the sensory stimulus obtained with intravenous administration of tetraethylammonium chloride seem to play a part in the beneficial effects. This appeared to be merely a contributory factor, since only 1 of 11 patients did as well on other drugs which give a sensory stimulus. No harmful effects were observed in the 18 patients who were followed for six to 20 months, despite the fact that about two thirds were over 60 years of age and 70 per cent had either experienced a myocardial infarct previous to this study or had been in congestive failure at some time. Twenty per cent had had both infarction and failure. The correct dose must be found for each patient, and patients must remain recumbent until they no longer have postural hypotension. The relief of status anginosus and of the persistent, long-continued pain and discomfort associated with coronary insufficiency was especially gratifying. Electrocardiograms showed an anginal pattern during the attack and a reversion to the preanginal pattern immediately after the administration of the drug. The authors believe that tetraethylammonium chloride breaks up the process involved in an anginal attack.

Residual Blood in the Heart.—Friedman defines as the residual blood of the heart the volume which remains in the cavities after systole. Nylin began to study this problem 15 years ago and early called attention to the discrepancy between the volume of the heart at postmortem examination and the teleroentgenologic volume of the heart during life according to the Rohrer-Kahlstorf formula. This calculation is made with the help of sagittal and frontal orthodiagrams and is based on the assumption that the heart is between a paraboloid and an ellipsoid in shape. The author calculated the residual blood during life in 6 patients with decompensated rheumatic valvular disease and considerable enlargement of the heart. In 6 patients with rheumatic disease and 4 patients with a normal heart volume he compared the heart volume as determined by postmortem teleroentgenography with the volume of the heart removed from the body with all the vessels ligated as estimated by displacement methods. The aim was to prove the reliability of the teleroentgenologic method for determining the heart volume in adults. It was demonstrated that during life the hearts of decompensated patients contain considerable quantities of residual blood. The values for residual blood lie between 58 per cent and 71 per cent of the total heart volume during life. The accuracy of the roentgen method for determining heart volume and the decrease in heart volume with rigor mortis has likewise been demonstrated. In 1 case the heart decreased in volume by about 50 per cent. The knowledge that large amounts of residual blood are present during life in decompensated valvular heart disease accords with the prolonged circulation time pointed out by Nylin and others. The difference between the total heart volume during life and the volume of the heart muscle per se, which difference corresponds approximately to the volume of the residual blood, emphasizes the meaning of the clinical term "dilatation." The volume of residual blood must be added to the relatively small stroke volume in cases of decompensation. In certain circumstances, the heart, like the liver and the spleen, seems to function as a blood depot.

American Journal of Clinical Pathology, Baltimore

20:201-304 (March) 1950

Morphology of Viral Inclusions and Their Practical Importance in Diagnosis of Human Disease. H. Pinkerton.—p. 201.
In Vitro Sensitivity of Human Pathogenic Strains of Streptococci to Seven Antibiotics (Penicillin, Streptomycin, Bacitracin, Polymyxin, Aerosporin, Aureomycin and Chloromycetin). M. Finland, C. Wilcox and P. F. Frank.—p. 208.
In Vitro Susceptibility of Pneumococci to Seven Antibiotics (Penicillin, Streptomycin, Bacitracin, Polymyxin, Aerosporin, Aureomycin and Chloromycetin). G. G. Jackson, T. M. Gocke, C. Wilcox and M. Finland.—p. 218.
Complex Mechanisms of Quick Prothrombin Test and Effect of Dicumarol. F. D. Mann and M. M. Hurn.—p. 225.
New One-Stage Procedures for Quantitative Determination of Prothrombin and Labile Factor. M. Stefanini.—p. 233.
Histologic Changes Produced by Radiation in Adenocarcinomas of Uterus: Comparison with Changes Produced in Squamous Cell Carcinomas of Cervix. J. F. Sheehan and H. E. Schmitz.—p. 241.
Plasma Amino Acids and Ether-Soluble Phenols in Uremia. E. G. Schmidt, N. F. McElvain and J. J. Bowen.—p. 253.
Lipoma of Palm. D. T. Bosch and W. G. Bernhard.—p. 262.

American J. Digestive Diseases, Fort Wayne, Ind.

17:65-104 (March) 1950

Prolapse of Gastric Mucosa and Its Possible Relationship with Peptic Ulcer and Upper Gastro-Intestinal Hemorrhage. S. P. Bralow, G. H. Becker, S. Scheinberg and H. Necheles.—p. 65.
Study of Hiatus Hernia. A. X. Rossien, J. R. Reuling and A. Stanton. —p. 69.
Value of American Preparation of Secretin in Diagnosis of Pancreatic Disease. M. M. Nathman.—p. 76.
Phenolphthalein Today: Critical Review. E. W. Abramowitz.—p. 79.
Meckel's Diverticulum. Intussusception. Peritoneoscopy. Operative Cure. M. S. Harte and M. G. Elias.—p. 82.
Peptic Ulcer in Man: Part 2; Status of Ulcer Therapy. S. P. Bralow, H. Kroll, M. Spellberg and H. Necheles.—p. 86.
Treatment of Capillary Fragility with Combination of Hesperidin and Vitamin C. G. J. V. Selsman and S. Horoschak.—p. 92.
Diagnosis of Early Cancer of Colon and Rectum. E. Granet.—p. 95.

American Journal of Medicine, New York

8:137-266 (Feb.) 1950. **Partial Index**

Cerebral Blood Flow in Vascular Disease of Brain with Observations on Effects of Stellate Ganglion Block. P. Scheinberg.—p. 139.
Treatment of Paralysis Agitans with Dihydro-Beta-Erythroidine. S. Shapiro and A. B. Baker.—p. 153.
*Use of Curare in Treatment of Anterior Poliomyelitis. A. G. Bower, O. L. Huddleston and D. Hovsepian.—p. 160.
Myocardial Infarction: I. Statistical Analysis of 679 Autopsy-Proven Cases. W. J. Zinn and R. S. Cosby.—p. 169.
Cor Biloculare: Report of 4 Cases. J. J. Conn, T. E. Clark and R. W. Kissane.—p. 180.
Observations on Small Intestinal Hypomotility and States of Hypertonicity Arising from Functional Bases. L. Martin.—p. 196.

Curare in Poliomyelitis.—The treatment employed by Bower and associates consisted in administering curare in the form of purified Chondodendron tomentosum extract (intocostrin®) in doses of 0.9 to 1.5 units per kilogram of body weight two or three times daily. Physical therapy consisted in passive stretching combined with or followed by active assistive exercises for 20 to 40 minutes following each injection. The effect of the drug and physical therapy was observed on 40 patients. Response to this therapy was most satisfactory when treatment was begun within two to six days after the onset of muscle involvement. Patients showing a combination of severe muscle tightness and weakness were less likely to be benefited by curare than those showing muscle tightness alone. Patients with extensive paralysis and weakness were not greatly benefited by the curare therapy. Localized pain, tenderness and soreness of the soft tissues in and about the joints were observed in 6 patients, but insufficient data are available to state definitely that these symptoms were caused by purified Chondodendron tomentosum extract injections. The muscle tightness of some patients who were refractory to pack therapy was relieved by the drug and physical therapy. A few patients were refractory to either hot packs or curare therapy, as well as to a combination of these two. Curare was helpful in treating some patients who had to be placed in the respirator. Of the 10 patients who received curare during treatment in the respirator, 4 made a satisfactory recovery. The drug was most valuable in the early phases of disease in patients not coordinating their breathing with the respirator. It stopped aberrant irregular impulses from coming through to the intercostals and diaphragm, and the patient's breathing assumed the rhythm of the respirator. Relief of laryngeal and intercostal tightness by purified Chondodendron tomentosum extract saved at least 1 patient and possibly 2 more from asphyxiation.

8:267-408 (March) 1950

Effects of Pituitary Adrenocorticotrophic Hormone (ACTH) in Panhypopituitarism of Long-Standing and Myxedema. A. I. Knowlton, J. W. Jailer, H. Hamilton and R. West.—p. 269.
Prepared Insulin Mixtures in Treatment of Severe Diabetic Patient. H. Dolger.—p. 285.
*Diabetes Mellitus and Liver Dysfunction: Etiologic and Therapeutic Considerations. C. M. Leevy, C. M. Ryan and J. C. Fineberg.—p. 290.
Clinical, Functional and Histologic Studies in Laennec's Cirrhosis of Liver. J. Post and J. V. Rose.—p. 300.
Weil's Disease: Report of 3 Cases. S. Leibowitz, M. Kissin and S. H. Rinzler.—p. 314.
Jaundice During Methyl Testosterone Therapy. S. C. Werner, F. M. Hauser and R. A. Kritzler.—p. 325.
Osseous Gaucher's Disease: Report of 2 Cases in Siblings. G. L. Gordon.—p. 332.

Diabetes Mellitus and Liver Dysfunction.—Leevy and his associates performed several hepatic tests in 380 patients with diabetes mellitus. One hundred and forty-eight (38.9 per cent) of the patients had evidence of hepatic dysfunction, and 232 had normal hepatic function. The incidence of hepatic dysfunction seemed to increase moderately with the total insulin requirement and decidedly with complicating pathologic conditions. Thirty selected diabetic patients were subjected to needle biopsy of the liver. Histologic examination in 8 with normal hepatic function showed that 5 had normal livers and 2 had fatty metamorphosis. In 22 with liver dysfunction, histologic examination revealed normal tissue in 9 instances, fatty metamorphosis in 5 instances and portal cirrhosis in 8. Sixty-five patients with the diabetic syndrome and evidence of hepatic dysfunction were followed-up for periods of more than twelve months on a hepatic regimen. Correlation of history, physical examination, function studies and therapeutic response suggested that hepatic dysfunction was responsible for abnormal carbohydrate metabolism in 15 patients, that liver dysfunction was secondary to diabetes in 48 patients and that liver disease and diabetes were coincidental in 2 patients. Hepatic studies are helpful in the periodic evaluation of the control of the diabetic status. Liver dysfunction may occasionally produce the diabetic syndrome. In 11 patients in whom hepatic disease was believed to be the cause of hyperglycemia with glycosuria, hepatic therapy without insulin resulted in improvement in the hepatic dysfunction and carbohydrate disturbance. Of 35 patients with liver dysfunction secondary to diabetes, the hepatic abnormality and carbohydrate tolerance improved with hepatic therapy and insulin in 30.

American Journal of Ophthalmology, Chicago

33:343-512 (March [Part I]) 1950

Sarcoidosis of Orbit. M. Bodian and M. A. Lasky.—p. 343.
Removal of Palpebral Portion of Lacrimal Gland Through Skin. M. Vannas.—p. 354.
Autoclaving of Drugs for Use at Time of Intraocular Surgery. W. H. Morrison and S. M. Truhlsen.—p. 357.
Effect of Local Use of Homatropine Hydrobromide on Normal Angiocoloma. M. M. Castagno.—p. 367.
Heredoalegeneration of Macula Lutea: Diagnostic and Differential Diagnostic Considerations and Histopathologic Report. B. A. Klien.—p. 371.
Principles of Surgery on Extraocular Muscles: Part I. Fundamental Principles: Choice of Operation in Concomitant Strabismus: Horizontal Muscles. H. M. Burian.—p. 380.
Irritating Effects of Maleic Acid and of Maleic Anhydride upon Eyes of Rabbits. C. A. Winter and E. J. Tullius.—p. 387.
Rate of Outflow of Fluid from Eye Under Increased Pressure. R. A. Moses and M. Bruno.—p. 389.
Critical Analysis of Precision in Tonometry. K. Apinis.—p. 398.
Nutritional Supply of Corneal Regions in Experimental Animals: I. Supply of Some Inorganic Ions. A. M. Potts and L. V. Johnson.—p. 405.
Studies on Physiology of Eye Using Tracer Substances: Part III. Further Studies on Steady-State Ratio of Sodium Between Plasma and Aqueous Humor in Guinea Pig and Monkey. R. O. Schulz.—p. 420.
Detachment of Retina in Young Adults: Analysis of Treatment of Young Age Group at Army General Hospital. A. I. Fink.—p. 424.
Studies of Eye with Radioiodine Autographs. L. von Sallmann and B. Dillon.—p. 429.
Sling Retraction Suture for Upper Lid During Cataract Surgery. L. H. Quinn and J. R. Stansbury.—p. 441.
*Acute Glaucoma Induced by Homatropine. W. O. Linhart.—p. 448.
Correlation of Anatomic Factors Concerned in Ophthalmoscopic Appearance of Retinal Hemorrhages. H. E. Smith.—p. 453.

Acute Glaucoma Induced by Homatropine.—Linhart cites 3 patients in whom homatropine induced acute glaucoma. Homatropine altered permanently the ability of the eye to withstand the glaucomatous condition. Routine medical treatment was employed in all the patients, with corneoscleral trephinations being necessary in 2 within six weeks. Tension and fields have been stabilized in all 3 patients for over four months. Homatropine in the usual concentrations may cause acute glaucoma.

33:1-76 (March [Part II]) 1950. **Partial Index**

INTERNATIONAL SYMPOSIUM ON CORNEAL SURGERY

Corneal Transplantation: Historical Review. R. T. Paton.—p. 3.
Technique of Penetrating Keratoplasty. J. I. Barraquer Jr.—p. 6.
Complications of Penetrating Keratoplasty: Their Prevention and Treatment. G. P. Sourdille.—p. 17.
*Statistics on Results of Keratoplasty. J. E. Roberts.—p. 21.
Indications for Therapeutic Lamellar Corneal Graft. L. Paufique.—p. 24.
Experimental Corneal Grafts of Lamellar Partial Type. D. M. Shafer.—p. 26.
Pathology of Removed Corneal Sections. J. Laval.—p. 32.
Observations on Embryonic Corneal Transplantation. D. Freeman.—p. 33.
Ultimate Fate of Graft. H. M. Katzin.—p. 35.
Dynamic Aspects of Tissue Structure in Corneal Epithelium. W. Buschke.—p. 39.

Results of Keratoplasty.—Roberts states that a statistical study of keratoplasty is made at present in the Manhattan Eye, Ear and Throat Hospital. In order to eliminate the varying factor of surgical technic, only grafting operations done by one surgeon and those operations done with the same or similar technic are considered in this report. The report deals with the final results in 100 cases of partial penetrating keratoplasty. Only the clarity of the transplanted corneal tissue is discussed. In the group as a whole, 55 per cent of the grafts remained clear and 45 per cent became cloudy. A high percentage of clear grafts can be obtained when cases are properly selected.

Cases most suitable for keratoplasty are those of conical cornea, small central opacities and mild interstitial keratitis. The larger the opacity, and the more extensive the preoperative corneal vascularization, the less chance there is for a final clear graft.

American Journal of Pathology, Ann Arbor, Mich.

26:177-348 (March) 1950

Studies on Lung After Ligation of Pulmonary Artery: II. Anatomical Changes. A. A. Liebow, M. R. Hales, W. E. Bloomer and others.—p. 177.
*Osteosarcoma Induced by Beryllium Oxide. F. R. Dutra and E. J. Largent.—p. 197.
Hormonally Induced Transformation of Adrenal into Myeloid Tissue. H. Selye and H. Stone.—p. 213.
Effect of Renal Ischemia on Production of Experimental Nephrosis in Jaundiced Rabbits. W. B. Wartman, A. P. Rusterholz and J. M. Tucker.—p. 235.
Centrilobular Hepatic Necrosis Following Cardiac Infarction. W. T. W. Clarke.—p. 249.
Histochemical Studies on Tissue Enzymes: IV. Distribution of Some Enzyme Systems Which Liberate Phosphate at *pH* 9.2 Determined with Various Substrates and Inhibitors; Demonstration of Three Groups of Enzymes. W. Newman, I. Feigin, A. Wolf and E. A. Kabat.—p. 257.
Effect of Calcium and Phosphorus Content of Diet upon Formation and Structure of Bone. M. S. Carttar, F. C. McLean and M. R. Urist.—p. 307.
Carcinoma of Pancreas: Clinical and Pathologic Analysis of 39 Autopsied Cases. W. B. Leach.—p. 333.

Osteosarcoma Induced by Beryllium Oxide.—Dutra and Largent injected into rabbits (1) a purified beryllium oxide and (2) a calcined phosphor comprised of beryllium oxide, zinc oxide and silica. Neither of these materials is radioactive. An injection was made into an ear vein of each animal three times a week until the intended amount of material had been administered. The number of doses per animal ranged from 17 to 26, and the amounts of beryllium (calculated as metal) ranged from 0.013 to 0.116 Gm. per kilogram of body weight. The animals were examined periodically by palpation of the skeletal structures for the presence of tumors. Osteosarcomas developed in 6 of the 9 animals that lived for one year or more after the first injection. The first tumor appeared 11½ months after the start of the experiment. Postmortem examination was required to reveal the tumors in 3 animals. The ability of simple beryllium compounds to stimulate neoplastic growth has been confirmed by these studies. Chemical analysis of the tumors revealed little beryllium. Tumor fragments from one animal grew in the anterior chamber of the eyes of guinea pigs. The continued growth of the osteogenic sarcomas, once established, appears to be independent of the presence of beryllium. There is no basis for the belief that the fibrosis which occurs in human beryllosis is likely to lead to the development of tumors. No tumor has been induced by beryllium compounds except after their intravenous administration.

American Journal of Physiology, Baltimore

160:441-584 (March) 1950. Partial Index

Functional Significance of Residual Sympathetic Pathways Following Verified Lumbar Sympathectomy. W. C. Randall, W. F. Alexander, A. B. Hertzman and others.—p. 441.
Pilocarpine Sensitization in Parasympathetically Denervated Pupil of Cat. E. A. Neidle.—p. 467.
Mechanism of Acute Lethal Effect of Epinephrine in Rats. M. Nickerson, J. Berghout and R. N. Hammerstrom.—p. 479.
Adrenergic Agents and Adrenocorticotrophic Activity of Anterior Pituitary. E. Ronzoni and S. Reichlin.—p. 490.
Sodium Pentobarbital Anesthesia and Response of Adrenal Cortex to Stress. E. Ronzoni.—p. 499.
Studies on Mechanism of Potentiation of Circulatory Effects of Hypertonic Solutions Resulting from Admixture of These Solutions with Homologous Blood. I. J. Deyrup and W. W. Walcott.—p. 509.
Observations on Hypotension Following Intravenous Injection of Strongly Hypertonic Solutions Mixed with Homologous Blood. I. J. Deyrup and W. W. Walcott.—p. 519.
Measurement of Extracellular Fluid by Means of Constant Infusion Technique Without Collection of Urine. I. L. Schwartz.—p. 526.
Movement of Inulin Between Plasma and Interstitial Fluid. D. Schachter, N. Freinkel and I. L. Schwartz.—p. 532.
Effect of Normal and Abnormal Changes of Intrathoracic Pressure on Effective Right and Left Atrial Pressures. D. F. Opdyke and G. A. Brecher.—p. 556.
Quantitative Study of Reduction of Gastric Acid Secretion Associated with Pyrexia. D. Blickenstaff and M. I. Grossman.—p. 567.
Nature of Action of Labile Factor in Formation of Thrombin. A. J. Quick and M. Stefanini.—p. 572.

American Journal of Tropical Medicine, Baltimore

30:121-344 (March) 1950. Partial Index

Public Health Status of Amebiasis in the United States, as Revealed by Available Statistics. W. H. Wright.—p. 123.
Water Treatment Measures in Control of Amebiasis. W. L. Newton.—p. 135.
Clinical Picture of Hepatic Amebiasis. W. A. Sodeman.—p. 141.
Complement Fixation Test for Hepatic Amebiasis. K. L. Hussey and H. W. Brown.—p. 147.
Evaluation of Influence of World War II on Incidence of Amebiasis. D. R. Lincicome, W. H. Thiele and E. Carpenter.—p. 171.
Action of Chloramphenicol (Chloromycetin) and Other Drugs Against Endamoeba Histolytica In Vitro and in Experimental Amebiasis. P. E. Thompson, M. C. Dunn, A. Bayles and J. W. Reinertson.—p. 203.
Follow-Up Observations on Treatment of Bancroftian Filariasis with Hetrazan in British Guiana. R. Hewitt, M. Kennedy, A. Chan and H. Mohamed.—p. 217.
Schistosomiasis Japonica in American Military Personnel: Clinical Studies of 600 Cases During First Year After Infection. H. Most, C. A. Kane, P. H. Lavietes and others.—p. 239.

American Review of Tuberculosis, New York

61:299-442 (March) 1950

Sarcoidosis: Clinical and Roentgenological Study of 28 Cases. J. H. Moyer and A. J. Ackerman.—p. 299.
Pneumoperitoneum with Phrenic Paralysis for Pulmonary Tuberculosis. W. J. Habeeb and H. G. Reiser.—p. 323.
Electrocardiogram in Pneumoperitoneum: Including Augmented Unipolar Limb Leads and Unipolar Chest and Esophageal Leads. E. Evans and T. C. Black.—p. 335.
Effect of Penicillin on Wound Infection and Other Complications After Thoracoplasty. W. E. Bloomer and J. W. Major.—p. 346.
Appendicitis During Pneumoperitoneum Treatment. B. Schaff and S. Bornstein.—p. 353.
Bronchoscopy in Sanatorium: Review of 522 Consecutive Bronchoscopies. D. M. MacRae, J. E. Hiltz and J. J. Quinlan.—p. 355.
*Bronchogenic Carcinoma and Pulmonary Tuberculosis. L. M. Shefts and W. Hentel.—p. 369.
Relationships Between Tuberculosis and Bronchiectasis: Study of Clinical and of Post-Mortem Material. E. M. Jones, W. M. Peck, C. E. Woodruff and H. S. Willis.—p. 387.
Dissemination of Tubercle Bacilli in Experimental Tuberculosis in Guinea Pig. M. A. Soltys and A. R. Jennings.—p. 399.
Studies in Tuberculosis Chemotherapy: I. Simple Primary Aromatic Amines, in Vitro and in Vivo. L. Doub and G. P. Youmans.—p. 407.

Bronchogenic Carcinoma and Pulmonary Tuberculosis.—Shefts and Hentel report 3 cases in which tuberculosis and carcinoma of the lung coexisted. Studies of sections from both upper lobes in one of these revealed carcinoma in the upper lobe of the left lung and coexisting carcinoma and tuberculosis in the upper lobe of the right lung. The second case was one of pulmonary tuberculosis with secondarily infected tuberculous empyema in which bronchogenic carcinoma was found at necropsy. The third case was one of far advanced tuberculosis. Studies of sections from the parenchyma of the lower lobe of the right lung revealed discrete and confluent areas of keratinizing squamous cell carcinoma, with metastases to the right hilar lymph nodes. The authors also cite 2 cases of carcinoma which simulated tuberculosis and one case of tuberculosis which resembled carcinoma.

Annals of Internal Medicine, Lancaster, Pa.

32:393-594 (March) 1950

*Treatment of Lymphomas and Other Neoplastic Diseases with Nitrogen Mustard. L. K. Alpert, E. M. Greenspan and S. S. Peterson.—p. 393.
Chronic Liver Disease Following Infectious Hepatitis. II. Cirrhosis of Liver. H. G. Kunkel and D. H. Labby.—p. 433.
Primary Carcinoma of Duodenum. J. Kleinerman, K. Yardumian and H. T. Tanaki.—p. 451.
*Clinical Diagnosis of Periarteritis Nodosa: Report of Four Cases. B. G. King.—p. 466.
Sustained Anuria in Lower Nephron Nephrosis: Report of Two Cases Treated Conservatively with Recovery. N. O. Fowler and W. E. Hunt.—p. 477.
Intracardiac Catheterization. W. T. Zimdahl and D. W. Chapman.—p. 489.
Plan for Avoiding Sensitization Reactions to Liver Injections. J. E. Cook.—p. 506.
Clinical Aspects of Complete Auriculoventricular Heart Block: Clinical Analysis of 71 Cases. L. W. Ide.—p. 510.
Sodium Succinate as Test of Circulatory Efficiency. I. Greenfield.—p. 524.
Propylthiouracil in Treatment of Angina Pectoris: Comparison with Thiouracil Therapy. S. Ben-Asher.—p. 528.

Treatment of Lymphomas with Nitrogen Mustard.—Alpert and co-workers used methyl bis-betachloroethylamine hydrochloride (nitrogen mustard, HN_2) in the treatment of 50 men and 2 women with various types of lymphomas and other

neoplastic diseases. The dosage schedule initially was 0.1 mg. per kilogram of body weight per day, repeated on four successive days. Later, doses up to 0.36 mg. per kilogram were used, but the total dose for one course of treatment in any patient did not exceed 46 mg. with the exception of 1 patient, who received 60 mg. The choice of the larger daily doses of the drug depended on the general condition of the patient, the white blood cell count and the extent of the disease. Injections were made into the largest available antecubital vein. Favorable, though temporary, effects were observed in the majority of 27 patients with Hodgkin's disease, in 3 with giant follicular lymphoblastoma and in 2 with lympholeukosarcoma. Little or no significant beneficial results were obtained in the patients with lymphosarcoma, reticulum cell sarcoma, chronic lymphatic leukemia, subacute myeloid leukemia, sarcoidosis and various carcinomas. Only 2 of the patients with Hodgkin's disease were adequately controlled with repeated courses of nitrogen mustard alone for periods of more than a year. In 17 patients roentgen therapy was considered necessary to produce more prolonged remissions than were obtained with nitrogen mustard. Although the most important toxic effects were observed in the hematopoietic system, panhematopenia was only occasionally a limiting factor in the continuation of the treatment. The development of moderate leukopenia was considered an indication of effective dosage. Leukopenia was usually of short duration. A white blood cell count as low as 2,000 per cubic centimeter was not considered a necessary contraindication to the use of the drug. Thrombopenia and purpura were the most serious complications encountered. Roentgen therapy is the treatment of choice for Hodgkin's disease when the lesions are well localized and readily accessible, while nitrogen mustard may be more effective in producing palliative results in patients with widespread and rapidly progressive disease.

Clinical Diagnosis of Periarteritis Nodosa.—King reports 4 cases of periarteritis nodosa in men between the ages of 22 and 36. Diagnoses were made clinically; three of these were confirmed at autopsy and one by biopsy. Musculature, kidneys, gastrointestinal tract and peripheral nerves were involved in all 4 patients. The heart, liver, central nervous system, skin and subcutaneous tissue were involved in 3. All the patients had fever, weakness, malaise, weight loss, hypertension and anemia. Periarteritis nodosa must be considered in patients in whom, in addition to the picture, which occurs commonly in all debilitating illnesses, there is evidence of involvement of more than one organ or system, in the absence of evidence of known infection, parasitic, neoplastic, congenital or metabolic diseases. Biopsy of muscle, cutaneous nodule or intra-abdominal organ is the only way of making a positive diagnosis during life, but a strong suspicion can be aroused when the diverse manifestations of periarteritis nodosa are considered.

Annals of Western Medicine & Surgery, Los Angeles

4:161-206 (April) 1950

*Exfoliative Cytology of Bronchogenic Carcinoma. I. M. Reingold and B. E. Konwaler.—p. 165.
Clinical Trial of Surital Sodium, New Intravenous Barbiturate: Report of Seven Hundred Cases. J. B. Dillon and J. S. Denson.—p. 172.
Errors, Omissions and Suggestions in Gynecology (Particularly in Management of Uterine Cancer and Prolapse). J. C. Doyle.—p. 174.
Dicumarol Therapy in Acute Myocardial Infarction. I. Treiger and W. Treiger.—p. 180.
Etiology of Primary Omental Torsion with Report of Two Cases. R. Ellenburg.—p. 184.

Cytology of Bronchogenic Carcinoma.—Reingold and Konwaler examined the sputum of 235 patients for cancer cells. Smears were made from the most suspicious and representative material of the secretion. Daily specimens were examined for three to five days. The Papanicolaou stain was preferred because of the cellular detail and coloring contrasts which it gives. Smears were proved positive for tumor cells in 32 cases and were confirmed by necropsy, bronchial biopsy or thoracotomy. There were 4 false negative results, giving 89 per cent accuracy. Results of bronchial biopsies were positive in 21 of 30 cases confirmed at necropsy, giving 70 per cent accuracy of results. Sputum examination proved valuable in the detection of upper and lower lobe lung tumors which were out of reach of the bronchoscope. Eight of 11 cases of bronchogenic carcinoma diagnosed by smear examination alone proved to involve the upper and lower lobes. Sputum examinations are valuable in cardiac or debilitated patients in whom bronchoscopy is contraindicated. Metastatic lesions of the lung from a malignant melanoma and an adenocarcinoma of the colon were the source of cancer cells in bronchial secretions of 2 additional patients with positive smears and bronchial biopsies. Bronchoscopy or roentgenograms are necessary to locate the pulmonary lesion before thoracotomy is attempted. The examination of bronchial secretions is a valuable adjunct in the diagnosis of neoplasm of the lung.

Archives of Dermatology and Syphilology, Chicago

61:539-714 (April) 1950

*Comparative Analysis of Mucocutaneous-Ocular Syndromes: Report of 11 Cases and Review of Literature. H. M. Robinson Jr. and F. R. McCrumb Jr.—p. 539.
Training of Dermatologist. C. G. Lane.—p. 561.
Hormones and Acne: Clinical Evaluation of Hormonal Therapy in Adolescent Girls with Acne. S. C. Way and G. C. Andrews.—p. 575.
*Relationship of Sunlight, Complexion and Heredity to Skin Carcinogenesis. A. F. Hall.—p. 589.
"Prophetic" Patch Test: Report on Results of Some 14,000 Completed Tests Performed by Army Industrial Hygiene Laboratory. B. D. Holland, W. C. Cox and E. J. Dehne.—p. 611.
Chronic Cutaneous Granulomas with Systemic Involvement: Report of 2 Cases with Bacteriologic Studies. A. L. Welsh and W. A. Altemeier.—p. 619.
Spindle Cell Epidermoid Carcinoma: Report of 5 Cases in Patients Who had Never Been Exposed to Roentgen Rays. M. J. Strauss.—p. 633.
Dihydrostreptomycin in Topical Therapy. J. L. Miller, M. H. Slatkin, H. L. Wechsler and B. A. Johnson.—p. 648.
Undecylenic Acid in Treatment of Psoriasis. H. C. Goldberg.—p. 661.
Diffuse Lepromatous Leprosy of Mexico (Spotted Leprosy of Lucio): Obscure Early Description in English. H. L. Arnold Jr.—p. 663.

Mucocutaneous-Ocular Syndromes.—According to Robinson and McCrumb a syndrome, of unknown cause, consisting of lesions occurring in the eyes and mouth and on the genitalia, has been called Behcet's disease, Stevens-Johnson disease, Reiter's disease and ectodermosis erosiva pluriorificialis. A critical review of the features of these symptom groups indicates a pronounced similarity. They are probably variants of erythema multiforme exudativum. Until the specific cause is discovered, there is no justification for the classification of these symptom groups as distinct entities. The use of a proper name to describe a symptom group as a disease entity is also not justified. The authors report 11 cases of a mucocutaneous-ocular syndrome in 6 male and 5 female patients. The basic process in these patients was similar, although the severity of the tissue reaction varied. The mucosal lesion appeared to be one of initial vesiculation with subsequent ulceration. Ocular complications were presumably related to secondary infection. Corneal ulceration, uveal tract disease and scarring always followed initial catarrhal conjunctivitis. Four of these patients had no urogenital symptoms, 2 complained of dysuria, 4 had nonspecific urethritis and 2 had balanitis without a discharge. Cutaneous lesions were for the most part of the erythema multiforme type with frequent iris and annular configuration. Vesiculobullous lesions were seen in 7 patients. Keratosis blennorrhagica was observed in 1 patient with severe joint signs. The commonest complications were nasopharyngitis, tracheobronchitis and pneumonia. The temperature was elevated in all these patients. The febrile course lasted three to 35 days. Relapses with fever and exacerbation of lesions occurred in several patients. Laboratory studies were of little value in establishment of the diagnosis. The syndromes could not be differentiated from the clinical or laboratory standpoint. One case could properly be classified as more closely fulfilling the criteria of so-called Reiter's disease. The others represented variants of erythema multiforme exudativum.

Sunlight and Skin Carcinogenesis.—Hall reports on 74 male and 26 female patients with histologically proved carcinoma of the exposed skin surfaces. Thirteen patients had brown eyes and 87 had eyes of light color other than brown ("blue-eyed group"). The brown-eyed group consisted of 46 per cent female and 54 per cent male patients, as against 23 per cent female and 77 per cent male patients in the blue-eyed group.

About the same percentage of both groups did outdoor work. Only 46 per cent of the brown-eyed group were "burned," as compared with 83 per cent of the blue-eyed group. Eight per cent of the brown-eyed group never tanned, while 37 per cent of the blue-eyed persons did not tan. In at least 50 per cent of the entire group both parents were light eyed, while the rest had one light-eyed parent. No patient with two brown-eyed parents gave a family history of carcinoma of the skin, and only 4 with one brown-eyed parent gave such a history, while 21 who gave a family history of carcinoma of the skin had 2 blue-eyed parents. The lineage of two thirds of the carcinoma group was traced to England, Ireland and Scotland. Observations made on the 100 patients with carcinoma of the exposed skin surfaces suggest that the more brown-eyed inheritance a person possesses, the better protected he is from the carcinogenic rays of the sun. Blue-eyed children of blue-eyed parents are, in general, the most susceptible as a group, but many of these are capable of tanning without repeated burning and thus acquire a fair degree of immunity. Superimposed on the classification of relative susceptibility according to inheritance of eye color is another factor which seems to be racial, although it involves mainly the blue-eyed group: descendants of natives of the British Isles, particularly when blue-eyed, often exhibit an almost complete inability to acquire and retain a thick enough stratum corneum to protect them from rays of carcinogenic wavelength in the amounts encountered in such regions as Texas, Arizona, Southern California and Australia. There are certain racial stocks and hereditary complexion patterns including the Negro and Oriental races, probably the Mexican and Mediterranean and possibly all homozygous brown-eyed persons, in which sunlight is not an important factor in skin carcinogenesis. Sunlight is by far the most important carcinogenic factor when repeatedly encountered in erythema-producing quantities in the racial stocks and hereditary complexion patterns of Irish-Scotch-English ancestry, including probably the blue-eyed North Europeans and possibly all homozygous blue-eyed persons.

Arch. Indust. Hygiene & Occupat. Medicine, Chicago

1:379-498 (April) 1950

*Acute Inhalation Toxicity of Beryllium: I. Four Definitive Studies of Beryllium Sulfate at Exposure Concentrations of 100, 50, 10 and 1 Mg. Per Cubic Meter. H. E. Stokinger, G. F. Sprague III, R. H. Hall and others.—p. 379.
Id.: II. Enhancing Effect of Inhalation of Hydrogen Fluoride Vapor on Beryllium Sulfate Poisoning in Animals. H. E. Stokinger, N. J. Ashenburg, J. DeVoldre and others.—p. 398.
Rehabilitation: Third Phase of Medicine. H. A. Rusk.—p. 411.
Arsine Poisoning: Epidemiologic Studies of Outbreak Following Exposure to Gases from Metallic Dross. L. W. Spolyar and R. N. Harger.—p. 419.
Arsine Poisoning: Study of Thirteen Cases. S. S. Pinto, S. J. Petronella, D. R. Johns and M. F. Arnold.—p. 437.
Relationships Between Industrial Medical Department and Private Physician. E. P. Luongo.—p. 452.
Injuries Following Continued Administration of Cadmium: Preliminary Report of Clinical and Experimental Study. L. Friberg.—p. 458.
Potential Sources of Error in Blood Lead Determinations Due to Different Methods of Blood Sampling. R. Sitgreaves and I. May.—p. 467.

Toxicity of Beryllium.—Acute beryllium poisoning with pulmonary lesions closely resembling those in man was produced by Stokinger and co-workers in 11 species of animals by exposing them daily to a beryllium sulfate mist. The animals experimented on included representatives of carnivora, herbivora, rodents, primates and fowls. Transition of the histologic lesions in the lungs of these animals to the granulomatous lesions characteristic of the chronic human cases had not developed after more than three months' exposure. There are indications that inhaled beryllium sulfate produces manifestations other than pulmonary injury and that beryllium gives rise to a complex set of responses. Among these are anemia which resembles the macrocytic type, changes of blood cell constituents and disturbances of nitrogen metabolism. The toxicity resulting from inhalation of beryllium sulfate mist was determined in four inhalation exposure studies employing 1 to 100 mg. of beryllium sulfate per cubic meter of air. Evidence was adduced by these studies, by control studies with sodium sulfate and by intratracheal instillation of pure beryllium metal in rats that the toxic manifestations observed are the result of the action of beryllium itself and not the result of the associated anions of its acidic salts. The acute toxic responses were produced at exposure concentrations and by tissue concentrations of beryllium far below those usually encountered in chemical toxicity. Amounts of the order of a few millimicrograms were observed in tissues where changes were noted. The type of pulmonary responses was little changed by decrease of the beryllium sulfate mist concentration from the 100 and 50 mg. to 1 mg. levels.

Archives of Neurology and Psychiatry, Chicago

63:535-680 (April) 1950

Hereditary Ataxia: Clinical Study Through Six Generations. J. W. Schut.—p. 535.
Postoperative Sweating Patterns in Thoracolumbar Sympathectomy and Splanchnicectomy. L. T. Palumbo, H. H. Samberg, J. C. Hohf and E. T. Burke.—p. 569.
*Thiopental U. S. P. (Pentothal®) Treatment of Alcoholism. F. Lemere and P. O'Hollaren.—p. 579.
Effect of "Mahomenitrile" on Physical and Mental Status of Schizophrenic Patients. D. Meyers, T. E. Shoemaker, W. C. Adamson and L. Sussman.—p. 586.
Effect of Electrically Induced Convulsions on Cutaneous Lymphatic Flow. M. D. Altschule and L. H. Altschule.—p. 593.
Osteoblastic Meningioma in Child. L. Madow and R. A. Farmer.—p. 596.
Involvement of Central Nervous System in Infectious Mononucleosis: Report of Case with Ataxia and Nystagmus. R. M. Hoyne.—p. 606.
Neurologic Conditions Occurring as Complications of Pregnancy. A. B. King.—p. 611.

Thiopental (Pentothal®) Sodium Treatment of Alcoholism.—Treatment of chronic alcoholism at the Shadel Sanitarium, Seattle, has been, according to Lemere and O'Hollaren, the conditioned reflex method employing emetine hydrochloride. Although results with this method have been gratifying, it was believed that they could be improved by more adequate treatment of the neurosis often present in alcoholic patients. The authors used thiopental (pentothal®) sodium narcosynthesis as a short cut to psychotherapy of these patients. The results were so encouraging that at present 30 per cent of their patients are receiving the drug as well as the conditioning therapy. The authors treated 503 patients with thiopental sodium alone or combined with conditioning. An accurate follow-up of 479 patients showed that 57 per cent had been abstinent since the start of treatment. Two hundred and nineteen patients were given the combined thiopental sodium and conditioning treatment on their first admission, with an abstinence rate of 68 per cent; 23 patients were given thiopental sodium alone, without conditioning, on their first admission, with an abstinence rate of 44 per cent; 166 patients were retreated with combined reconditioning and thiopental sodium after they had relapsed on conditioning alone, with an abstinence rate of 49 per cent; 71 patients were retreated with thiopental sodium alone after having relapsed on conditioning, with an abstinence rate of 45 per cent. Thiopental sodium was used in the most difficult cases, with a usually hopeless prognosis. The physical and mental relaxation produced by thiopental sodium is much more dramatic in the alcoholic neuroses than in nonalcoholic neuroses. Thiopental sodium therapy is in part substitutive. It gives much the same relief from tension as that afforded by alcohol, without the harmful effects of the latter. Its use can be controlled by the physician and the drug gradually withdrawn as the patient learns to live without alcohol.

Blood, New York

5:209-302 (March) 1950

Granulomatous Lesions in Bone Marrow in Infectious Mononucleosis: Comparison of Changes in Bone Marrow in Infectious Mononucleosis with Those in Brucellosis, Tuberculosis, Sarcoidosis and Lymphatic Leukemia. R. F. Hoyle and R. D. Sundberg.—p. 209.
Hereditary Nonspherocytic Hemolytic Anemia. W. H. Crosby.—p. 233.
Studies on Charcot-Leyden Crystals. W. W. Ayres and S. M. Starkey.—p. 254.
Acid and Alkaline Phosphatase in White Cells: Data for Lymphocyte and Polymorphonuclear Leukocyte of Man and Rabbit. W. H. Haight and R. J. Rossiter.—p. 267.
Hemoglobin Levels Among Seven to Fourteen Year Old Children in Saskatoon, Canada. W. W. Hawkins and D. K. Kline.—p. 278.
Hypersplenism Associated with Follicular Lymphoblastoma: Report of Case with Splenectomy. L. Berman, A. A. Klein, H. J. Linn and G. S. Bates.—p. 296.

Bulletin of Johns Hopkins Hospital, Baltimore

86:131-190 (March) 1950

*Study of Effect of Adrenocorticotropic Hormone (ACTH) upon Experimental Cardiovascular Lesions Produced by Anaphylactic Hypersensitivity. M. Berthrong, A. R. Rich and P. C. Griffith.—p. 131.
Electrocardiographic Observations During Cardiac Catheterization. I. R. Goldman, S. G. Blount Jr., A. L. Friedlich and R. J. Bing.—p. 141.
Antibacterial Action of Neomycin and Furadroxyl In Vitro and In Vivo. P. T. Warth, C. A. Chandler and E. A. Bliss.—p. 169.
Antimony Concentration in Thyroid Gland and Its Effect upon Metabolic Rate and Serum Cholesterol Level. L. B. Kramer.—p. 179.

Pituitary Adrenocorticotropic Hormone (ACTH) and Cardiovascular Lesions.—Berthrong and his associates sensitized 40 rabbits with horse serum in the manner known to favor the development of periarteritis nodosa and cardiac inflammatory lesions. Half were treated with pituitary adrenocorticotropic hormone (ACTH), the remainder serving as controls. Vascular or cardiac lesions or both were found in 18 of the 20 untreated controls, whereas such lesions were found in only 5 of the 20 animals treated with ACTH. While these results strongly suggest that ACTH exerts an inhibitory effect on the development of the cardiovascular lesions of hypersensitivity, further studies are required before such a conclusion can be regarded as established.

Bulletin New York Academy of Medicine, New York

26:143-202 (March) 1950

Lipid Disturbance in Biliary Obstruction and Its Relationship to Genesis of Arteriosclerosis. E. H. Ahrens Jr.—p. 151.
Advances in Diagnosis of Digestive Tract Diseases. R. Golden.—p. 163.
Causes of Arteriosclerosis. W. Dock.—p. 182.
Light-Induced Recovery of Microorganisms from Ultraviolet Radiation Injury, with Special Reference to Escherichia Coli. A. Kelner.—p. 189.

California Medicine, San Francisco

72:133-196 (March) 1950

Clinical Potassium Problems. H. E. Martin, M. Wertman, L. Westover and others.—p. 133.
Acute Pancreatitis. J. R. Paxton and J. H. Payne.—p. 142.
Chronic Relapsing Pancreatitis. D. L. Wilbur.—p. 145.
Clinical Significance of Urinary 17-Ketosteroid Assays. G. R. Biskind. —p. 148.
Liquid Nitrogen in Treatment of Skin Diseases. H. V. Allington. —p. 153.
Ruptured Cervical Intervertebral Discs. C. H. Shelden and R. H. Pudenz.—p. 156.
Treatment of Miliary and Meningeal Tuberculosis in Infants and Children. T. L. Perry.—p. 159.
Neurological Program of Veterans Administration. W. F. Schaller. —p. 164.
Coccidioidomycosis of Meninges. W. C. Buss, T. E. Gibson and M. A. Gifford.—p. 167.
Pathology and the Pathologist in Cancer Program. W. O. Russell and J. L. Neff.—p. 170.

Delaware State Medical Journal, Wilmington

22:43-62 (March)1950

Electrokymogram in Angina Pectoris: Preliminary Report. A. H. Clagett Jr.—p. 44.
Subacute Bacterial Endocarditis. I. N. Carroll.—p. 45.
Use of Quinidine in Daily Practice. R. M. Myerson and A. H. Clagett Jr.—p. 48.
*Shoulder-Hand Syndrome Following Coronary Heart Disease: Report of Case. I. N. Carroll and M. Mahru.—p. 52.
Pheochromocytoma. M. Mahru and I. N. Carroll.—p. 54.

Shoulder-Hand Syndrome in Coronary Heart Disease.—According to Carroll and Mahru pain in the shoulder region following myocardial infarction is well known, but the shoulder-hand syndrome following infarction is inadequately understood. The mechanism of this syndrome has been summarized by Steinbrocker as being due to widespread disturbances of the internuncial pool, which is composed of a network of widely connecting neurons in the gray matter of the central nervous system, particularly the spinal cord. Stimuli arising in the heart reach spinal cord segments by way of the cardiac nerves. Here the internuncial pool is activated, and the impulses may travel to involve the anterior horn cells and the posterolateral column sympathetic neurons at different levels, resulting in disturbances which cause reflex dystrophy. Either or both of the upper extremities may be involved. The first stage is characterized by swelling, pain, tenderness, increased heat and discoloration. This may disappear or may progress to the second stage, when the swelling subsides but pain and stiffness become progressively worse. The hands are cold, and the skin becomes thick and attached to the underlying tissues. Muscle atrophy occurs, and trophic changes develop in the bones of the hands and sometimes the shoulder. Clawlike contractures, due to shortening and thickening of flexor tendons and palmar fascia, characterize the third stage. The hands become stiff, hard, cold and dull rather than shiny as in the earlier stages. The authors describe a man, aged 55, in whom reflex dystrophy developed in both upper extremities. After about 10 weeks of physical therapy and elastic traction for the fingers, the patient was able to use his fingers but was not able to perform the finer movements.

Georgia Medical Association Journal, Atlanta

39:51-88 (Feb.) 1950

Breech Presentation: Is Fetal Extension an Etiologic Factor? G. L. Calk and R. Torpin.—p. 51.
Bicornate Uteri: Obstetric Complications. T. S. Gatewood.—p. 54.
Diabetes in Pregnancy. J. R. McCain and W. M. Lester.—p. 57.
Clinical Impressions of Some of Newer Analgesic Agents. J. M. Brown and P. F. Volpitto.—p. 63.
The Eye in Advancing Years. M. B. Raiford.—p. 66.
Integrated Hospital Service. T. T. Blalock.—p. 72.
Legislation. E. Callaway.—p. 73.

39:89-144 (March) 1950

History of Medical Association of Georgia, 1881-1949. F. K. Boland. —p. 89.
Medicine Versus Politics. E. Callaway.—p. 113.

Illinois Medical Journal, Chicago

97:113-168 (March) 1950

Amebiasis (Amebic Colitis): Present-Day Management. J. A. Bargen.—p. 129.
Present Status of Goiter—Simplified Thyroidectomy. J. E. Bellas. —p. 138.
Practical Difficulties in Defining Word "Normal" in Medicine. H. Ratner.—p. 143.
Working with All Other Committees of State Society. P. E. Hopkins.—p. 146.
New Analgesic Combination for Routine Use in Control of Pain. R. W. McNealy.—p. 150.
Peoria Visual Screening Project. C. S. Turner and J. A. Potter. —p. 151.
Organic Mercurial Poisoning Treated with Bal in Oil. A. E. Livingston and R. G. Price.—p. 155.
Disseminated Coccidioidomycosis with Severe Cutaneous Manifestations. J. D. Kirshbaum.—p. 157.

Indiana State Medical Assn. Journal, Indianapolis

43:165-256 (March) 1950

Prevention Preferred in Operating Room. R. J. Whitacre and N. DePiero.—p. 181.
Present Status of Fenestration Operation in Treatment of Deafness Due to Otosclerosis. R. J. McQuiston.—p. 185.
Safety of Cesarean Section. C. P. Huber.—p. 189.
Use of Intravenous Propyl-Methyl-Carbinyl Allyl Barbituric Acid for Hypnosis During Nitrous Oxide Anesthesia: Preliminary Report. V. K. Stoelting, J. P. Graf and G. W. Rasch.—p. 192.
Edema of Vulva in Pregnancy: Report of 3 Cases. D. A. Bickel and P. G. Seyler.—p. 193.

Industrial Medicine and Surgery, Chicago

19:95-150 (March) 1950. **Partial Index**

*Physiologic Aspects of Atmospheric Pollution: Keynote Address. C. P. McCord.—p. 97.
Community Problem. H. G. Dyktor.—p. 102.
Properties and Behavior of Air Contaminants. H. F. Johnstone.—p. 107.
Meteorology as Factor in Air Pollution. H. C. Willett.—p. 116.
Dilution and Its Part in Effective Air Pollution Control. G. R. Hill and M. D. Thomas.—p. 121.
Transformation as Factor in Correction. H. H. Schrenk.—p. 126.

Air Pollution.—McCord postulates that all air is polluted and that this is a physiologic necessity, for, in the absence of dust, actinic rays from the sun, now held back by dust-formed barriers, would have been disastrous. Orderly rainfall is governed by atmospheric dusts. Thus, not all air pollution is evil. McCord stresses the need for proper definition and terminology and discusses the sources of air pollution, the futility of fixed standards. Medicine in relation to air pollution finds its greatest handicap in inability to appraise the long range influence of low levels of toxic substances. The day by day injury is scarcely measurable. Tobacco smoking constitutes a highly personalized form of air pollution, in that the tobacco smoker is exposed to carbonaceous fume, tobacco tars, carbon monoxide,

V 1
195

sulfur gases, nicotine and sometimes arsenic. The author suggests that smoking might serve as a laboratory in the appraisal of air pollution. It is believed by some that irritants for the respiratory tract may accelerate or aggravate tuberculosis, but this is unproved. It may be accepted, however, that allergenic asthmatic episodes may be precipitated by specific air contaminants. Pulmonary cancer may be increased as a result of air polluted by tobacco smoking. Substances in industry such as certain chromates and naphthalenes may have a carcinogenic effect. Dyktor states that complete elimination of air pollution is not attainable. A rational balance among the right of industry, the community's demand for a decent living environment and the community's need for the economic support of the industry involved may be attained. Legislation, to be effective, should be of the performance rather than the punitive type. Except in cases of a definite hazard to the health and safety of the people, offending plants should not be arbitrarily closed.

Journal of Allergy, St. Louis

21:85-180 (March) 1950. **Partial Index**

Allergy: Dermatologist's Reminiscences and Speculations. M. B. Sulzberger.—p. 83.
Local Organ Hypersensitivity to Autogenous Antigens: I. Experimental Production of Pneumonitis. R. Jahiel and R. Jahiel.—p. 102.
Histamine-Induced Cardiovascular Lesions. L. Farmer and G. L. Rohdenburg.—p. 120.
Effect of Flavonoid (Vitamin P-Like) Substances on Histamine Toxicity, Anaphylactic Shock, Histamine-Enhanced Capillary Permeability to Dye, and Bleeding Time; with Data on Toxicity of Flavonoids. W. G. Clark and E. M. MacKay.—p. 133.
Treatment of Respiratory Allergy in Children by Oral Administration of Dust and Pollen Extracts. J. H. Black and J. Helman.—p. 148.
Technique for Studying Nasal Absorption of Allergens in Human Beings. R. A. Chait and M. Walzer.—p. 153.
Clinical and Experimental Evaluation of Thephorin Ointment. F. Reiss and A. B. Kern.—p. 160.

Journal of Aviation Medicine, St. Paul

21:1-76 (Feb.) 1950. **Partial Index**

Visual Problems in Designing Improved Indirect Lighting for Aircraft Cockpits. F. R. Brown and J. R. Poppen.—p. 3.
*Effect of Intermittent Positive Pressure Breathing on Respiratory Gas Exchange. H. L. Motley, L. P. Lang and B. Gordon.—p. 14.
Comparison of Protective Value of Antiblackout Suit on Subjects in Airplane and on Mayo Centrifuge. E. H. Lambert.—p. 28.
Electromyographic Study of Effects of Various Headward Accelerative Forces upon Pilot's Ability to Perform Standardized Pulls on Aircraft Control Stick. J. G. Wells and L. E. Morehouse.—p. 48.
Sudden Spontaneous Accidents to Brain in Healthy Young Adults. R. Jaeger.—p. 55.
Decisions in Eye Injuries. C. R. Mullen.—p. 58.

Intermittent Positive Pressure Breathing and Respiratory Gas Exchange.—According to Motley and his associates intermittent positive pressure breathing has been used in anthracosilicosis and in conditions such as acute pulmonary edema, barbiturate poisoning and carbon monoxide poisoning and more recently to supplement the Drinker type respirator in treating poliomyelitis. The influence of positive pressure breathing on cardiac output was studied previously by quantitative measurements obtained by the catheterization technic. The authors describe studies on the respiratory gas exchange by means of arterial blood determinations and expired air analysis in 77 anthracite or bituminous coal miners in whom dyspnea, cough, expectoration, weakness, weight loss, chest pain and hemoptysis were the major complaints. Determinations were made during both ambient and intermittent positive pressure breathing. In the patients in whom the mean oxygen gradient of pressure from alveoli to arterial blood (transfer gradient) was abnormally elevated (20 mm. of mercury or more), the gradient was consistently reduced in the nonemphysematous group and to a less extent in patients with emphysema. Thus it seems that intermittent positive pressure breathing increases the arterial oxygen saturation and decreases the mean oxygen gradient of pressure from alveoli to arterial blood by producing a more uniform alveolar aeration by inflating those alveoli which have impaired circulation of air and which are mechanically obstructed by fibrosis with loss of elasticity and are further hampered by bronchospasm. The studies with intermittent positive pressure breathing indicate that in the fibrosis of anthracosilicosis the distribution factor rather than a true diffusion difficulty is responsible for the increased oxygen gradient between the alveoli and the arterial blood.

Journal of Clin. Endocrinology, Springfield, Ill.

10:121-288 (Feb.) 1950

Testicular Deficiency: Clinical and Pathologic Study. R. P. Howard, R. C. Sniffen, F. A. Simons and F. Albright.—p. 121.
*Studies on Effect of Epinephrine on Pituitary-Adrenocortical System. L. Recant, D. M. Hume, P. H. Forsham and G. W. Thorn.—p. 187.
Clinical Experience with Bioassay Method for Determination of Urinary Corticosteroids. A. P. Forbes, G. C. Griswold and F. Albright.—p. 230.
*Efficacy of Testosterone Compounds Administered Sublingually to Hypogonadal Men. R. F. Escamilla and G. S. Gordan.—p. 248.
Hormonal Factors Producing Gametokinetic Response in Male Frog (Rana Pipiens). R. B. Greenblatt, S. L. Clark and R. M. West.—p. 265.
Hirsutism and Virilism in 5-Year-Old Girl: Remission Following Removal of Adrenal Carcinoma; Recurrence After Three and a Half Years. W. J. Kolff and K. B. Tjiook.—p. 270.

Effect of Epinephrine on Pituitary-Adrenocortical System.—Recant and his associates investigated the humoral factors that influence the number of circulating eosinophils in rats, dogs and human beings, to determine whether the eosinophil count reflects the adrenocortical function, the importance of epinephrine in reactions of stress and the mode of action of epinephrine on the pituitary-adrenocortical system. The authors found that the reduction of circulating eosinophils under conditions of stress is dependent on an increased pituitary-adrenal cortical activity in rat, dog and man. The eosinopenic response may be obtained in animals subjected to adrenalectomy or in patients with Addison's disease with certain aqueous adrenal cortical extracts and with certain adrenal steroids. Compounds E and F will produce an eosinopenia which is not observed with comparable doses of desoxycorticosterone. Pituitary adrenocorticotropic hormone produces an eosinophil fall when only the adrenal cortex is present and does not require the adrenal medulla for its action on the circulating eosinophil. Epinephrine produces an eosinopenic response only in the presence of a normal ACTH-producing mechanism in the anterior pituitary and an intact adrenal cortex. The anterior pituitary still responds when devoid of its nervous and vascular connections with the hypothalamus. Epinephrine does not appear to be the obligatory activating agent for ACTH production in stress. Epinephrine has no eosinopenic action per se as shown in rats and dogs subjected to adrenalectomy. In patients with Addison's disease, small doses (0.3 mg. or less) of epinephrine given subcutaneously or intravenously fail to depress eosinophils by more than 30 per cent. However, doses up to 1.5 mg. do lead to depressions approaching 50 per cent. This suggests anterior pituitary activation of adrenal cortical remnants. It has been shown that epinephrine may act synergistically with a subliminal quantity of circulating adrenal cortical hormone in the production of eosinopenia. Thus, commercial extracts devoid of an eosinopenic action become activated by the addition of a small, otherwise ineffective dose of epinephrine. The adrenal cortex shows a relative refractory period up to eight hours after a single dose of 25 mg. of ACTH intramuscularly or 0.3 mg. of epinephrine subcutaneously. When administered for 24 to 48 hours, either intravenously or subcutaneously, epinephrine will lead to eosinopenia but, unlike ACTH, it does not lead to a decided rise in the urinary 17-ketosteroid or 11-oxysteroid excretion. The authors describe a clinical test for the evaluation of pituitary-adrenocortical integrity, which is based on the four-hour fall in circulating eosinophils following the subcutaneous injection of 0.3 mg. of epinephrine or the intravenous administration of 0.2 mg. in 200 cc. of isotonic sodium chloride solution in a one hour period. A fall exceeding 50 per cent rules out both adrenocortical and pituitary ACTH deficiency.

Sublingual Administration of Testosterone Compounds.—Escamilla and Gordan investigated the androgenic effects of testosterone, testosterone propionate and methyltestosterone in 12 hypogonadal men. In 7, treatment with tablets under the tongue or in the buccal gutter was the initial androgenic therapy. The other 5 had previously received androgens parenterally, but treatment had lapsed before the start of this study in 3 cases. Various preparations were compared serially in the same patient, and the degree of androgenic effect was tabulated. When administered buccally or sublingually in the

form of tablets, methyltestosterone was approximately twice as potent per milligram as unesterified testosterone, which in turn was approximately twice as potent as testosterone propionate. Failure to initiate or to maintain an androgenic effect was not encountered with methyltestosterone, but occasionally was found with the other two preparations. The type of base or the place in the buccal cavity in which the tablets were dissolved did not greatly alter the effectiveness. The gelatin-sucrose base seemed occasionally slightly superior to the lactose or wax base as a vehicle for unesterified testosterone. Hard compressed tablets designed for slow dissolution appear to be essential for full effectiveness by this route. Ten milligrams of methyltestosterone per day administered buccally or sublingually in the form of tablets was usually the maintenance dose.

Journal of Experimental Medicine, New York

91:245-340 (March) 1950

Pulmonary Edema in Influenzal Pneumonia of Mouse and Relation of Fluid in Lung to Inception of Pneumococcal Pneumonia. C. G. Harford and M. Hara.—p. 245.

Production of BCG Vaccine in Liquid Medium Containing Tween 80 and Soluble Fraction of Heated Human Serum: I. Production and Viability of Culture. R. J. Dubos and F. Fenner.—p. 261.

Id.: II. Antigenicity of Culture After Various Periods of Storage. F. Fenner and R. J. Dubos.—p. 269.

Effect of Injury by Toxic Agents upon Osmotic Pressure Maintained by Cells of Liver and of Kidney. E. L. Opie.—p. 285.

Specific Coagulases of Staphylococcus Aureus. C. H. Rammelkamp Jr., M. M. Herchicks and J. H. Dingle.—p. 293.

Association of Special Strain of Pleuropneumonia-like Organisms with Conjunctivitis in Mouse Colony. J. B. Nelson.—p. 309.

Influenza: I. Hemagglutination and Infectivity Titre Curves of PR8 Influenza Virus Cultivated in Embryonated Eggs at Different Temperatures. H. T. Blumenthal, D. Greiff, H. Pinkerton and R. DeWitt.—p. 321.

Id.: II. Effect of Influenza Virus Multiplication on Oxygen Consumption Curves of Embryonated Eggs Incubated at Different Temperatures. H. Pinkerton, D. Greiff, H. T. Blumenthal and R. Hensley. —p. 331.

Id.: III. Rapid Alterations in Respiratory Rate of Embryonated Eggs Apparently Caused by Influenza Virus Toxin. D. Greiff, H. T. Blumenthal and H. Pinkerton.—p. 335.

Journal of Immunology, Baltimore

64:39-110 (Feb.) 1950. **Partial Index**

Occurrence in Human Plasma Fractions of Antibodies to H. Pertussis. J. H. Hink Jr. and F. F. Johnson.—p. 39.

Biological and Technical Factors in Demonstration of Antibody Production by Lymphatic Tissue. T. N. Harris and S. Harris.—p. 43.

Estimation of Potency of Scarlatinal Antitoxin by Combined Flocculation and Rabbit Skin Test Method. S. S. Rao and P. J. Moloney.—p. 57.

Nonspecific Heat-Labile Factor in Serum Neutralization Test for Newcastle Disease Virus. B. F. Howitt.—p. 73.

Inactivation of Rh-Antibodies by Peroxidase. P. F. Wagley, I. W. Sizer, L. K. Diamond and F. H. Allen.—p. 85.

Comparison of Two Different Antagonists as Inhibitors of Acriflavine Fastness of Trypanosomes. R. J. Schnitzer and D. R. Kelly. p. 95.

64:111-256 (March) 1950. **Partial Index**

Studies on Chemical Nature of Normal Plasma Factor Which Suppresses Variation of Brucella Abortus. L. J. Cole and W. Braun. —p. 111.

Quantitative Estimation of Removal of Bacteria from Blood by Various Organs of the Immunized Animal. G. P. Kerby, B. C. Holland and S. P. Martin.—p. 123.

Immunity in Plague: Critical Consideration of Recent Studies. K. F. Meyer.—p. 139.

Effect of Low Temperatures on Vaccines of Influenza Virus and on Purified Influenza Virus. K. Penttinen.—p. 165.

Relationship Between Precipitin Titer and Number of Trichinella Spiralis in Intestinal Tract of Mice Following Test Infections. J. R. Hendricks.—p. 173.

Precipitin Production in Chickens: V. Effect of Splenectomy on Antibody Formation. H. R. Wolfe, S. Norton, E. Springer and others. —p. 179.

*Studies on Chick-Embryo Adapted Rabies Virus: II. Pathogenicity for Dogs and Use of Egg-Adapted Strains for Vaccination Purposes. H. Koprowski and J. Black.—p. 185.

Interference Phenomena Between Animal Viruses: Review. W. Henle. —p. 203.

Chick-Embryo-Adapted Rabies Virus.—Koprowski and Black studied the pathogenic properties of three egg-adapted strains of rabies virus (NYC, NIH and Flury) in dogs. Administered intracerebrally the NYC and NIH strains were more virulent than the Flury strain. The Flury strain was completely innocuous to dogs when inoculated either into the masseter or the thigh muscles. Vaccination of 76 dogs by the intramuscular route with preparations of the Flury strain of living rabies virus at various egg-passage levels indicated excellent immunogenic properties of the strain as judged by the results of challenge with street strain of rabies virus. The Flury strain was immunologically superior to the two other egg-adapted strains. Discussing the possible use of the egg-adapted Flury strain living rabies virus for mass vaccination of the canine population, the authors stress the following advantages: (1) apparent absence of paralytogenic properties, in contrast to the vaccines prepared from nervous tissue, (2) a possibly higher immunogenic power of the living virus vaccines and (3) possibility of longer duration of immunity in dogs vaccinated with living virus as compared to phenolized vaccines.

Journal of International College of Surgeons, Chicago

13:249-354 (March) 1950

Osteoid Osteoma: Etiology and Pathogenesis: Report of 12 New Cases. B. Pines, L. Lavine and D. M. Grayzel.—p. 249.

Transgastric Pancreatocystogastrostomy. R. E. Scovel and V. H. Holliger.—p. 278.

Rhinoplasty: Its Surgical Complications and How to Avoid Them. I. B. Goldman.—p. 285.

Incision for Exposure of Gallbladder. J. S. Carman.—p. 300.

Treatment of Duodenal Stump in Gastric Resection. A. B. Carney. —p. 306.

Treatment of Diabetes with Bilateral Alcoholization of Splanchnic Nerves. F. Rabboni.—p. 312.

Gastroesophageal Vagal and Sympathetic Innervation in Relation to Anatomic Approach to Combined Gastric Vagosympathectomy. A. L. Shapiro and G. L. Robillard.—p. 318.

Gastroscopy in Surgery. L. di Natale.—p. 328.

Pilonidal Cyst: Treatment by Uniformly Successful Method. C. J. Bellis.—p. 334.

Journal of Investigative Dermatology, Baltimore

14:153-226 (March) 1950

Mucinoses: Classification with Histochemical Studies on Nature of Mucin. L. L. Palitz and M. J. Brunner.—p. 159.

Anti-Fungal Activity of Metal Derivatives of 3-Pyridinethiol. G. Soo-Hoo and E. Grunberg.—p. 169.

Aids in Technic in Identification of Candida Albicans. A. M. Kligman. —p. 173.

Effects of Various Modes of Administration of Pyribenzamine on Histamine Wheal and Epidermal Sensitivity Reactions. S. M. Peck, B. Pinkler, G. G. Mayer and T. Mochelfelder.—p. 177.

Experimental Miliaria in Man: III. Production of Miliaria Rubra (Prickly Heat). W. B. Shelley and P. N. Horvath.—p. 193.

Proteins in Pemphigus Vulgaris: I. Electrophoretic Analysis of Proteins in Blood Serum of Patients with Pemphigus Vulgaris. W. F. Lever. —p. 205.

Id.: II. Electrophoretic Analysis of Proteins in Blister Fluid of Patients with Pemphigus Vulgaris. W. F. Lever.—p. 219.

Journal of Lab. and Clinical Medicine, St. Louis

35:331-496 (March) 1950. **Partial Index**

Effect of Perforated Eardrum Upon Basal Metabolic Rate. J. L. Switzer and L. E. Gates.—p. 348.

Defective Fat Absorption Following Vagotomy. H. J. Fox and K. S. Grimson.—p. 362.

Assay and Distribution of Secretin. M. H. F. Friedman and J. E. Thomas.—p. 366.

Chylomicronemia, Fat Tolerance, and Atherosclerosis. J. R. Morcton. —p. 373.

Utilization of Amino Acids by Patients Following Surgery. W. Parson, H. S. Mayerson, A. G. C. White and C. Lyons.—p. 385.

Turbidimetric Gamma Globulin Determinations in Hepatobiliary Diseases. H. Popper, J. de la Huerga, F. Steigmann and M. Sludki. —p. 391.

Observations on Diagnostic Value of Liver Biopsy, Tests of Hepatic Function, and Electrophoretic Fractionation of Serum Protein in Asymptomatic Portal Cirrhosis. W. E. Ricketts, J. B. Kirsner, W. L. Palmer and K. Sterling.—p. 403.

A Serum Polysaccharide in Cancer. F. G. Weisbrod.—p. 408.

Staining of Erythrocytes of Diabetic and Nondiabetic Patients: Unreliability of Bremer Test. M. B. Handelsman, L. M. Levitt and L. Rubin.—p. 422.

Study of Effect of Neomycin and other Antibiotics on Bacteria, Viruses, and Protozoa. O. Felsenfeld, I. F. Velini, S. J. Ishihara and others. —p. 428.

Recovery of Herpes Simplex Virus from Blood of Patient with Herpetic Rhinitis. I. Ruchman and K. Dodd.—p. 434.

*Brucella Studies on Bank Blood in General Hospital: A. Agglutinins; B. Survival of Brucella. W. W. Spink and D. Anderson.—p. 440.

Brucellosis and Bank Blood.—Spink and Anderson were able to demonstrate Brucella agglutinins in the blood of 302 (18.55 per cent) of 1,627 apparently healthy donors of blood to a blood bank in a general hospital. Only 27 or 1.66 per cent

had agglutinin titers of 1 to 160 or higher. There was some evidence that the donors with the high titers had had contact with the disease in the past. Since even in an endemic area only 1 or 2 per cent of a normal population has Brucella agglutinins in a significant titer, the agglutinin reaction is a valuable procedure in the detection of active disease. When small numbers of viable Brucella of the three species are seeded to citrated whole blood, organisms may be cultured as long as six months after, if the blood is refrigerated at 4 C.

Journal of Neurophysiology, Springfield, Ill.

13:1-112 (Jan.) 1950. **Partial Index**

Electromarcosis: II. Inhibition of Electrical Activity of Cerebral Cortex Following Application of Pulsed Stimulus to Diencephalon. E. Martini, T. Gualtierotti and A. Marzorati.—p. 1.
Id.: III. Inhibition of Cortical Electrical Activity Following Local Application of Pulsed Stimulus. T. Gualtierotti, E. Martini and A. Marzorati.—p. 5.
After-Potentials and Excitability of Spinal Motoneurones Following Antidromic Activation. C. McC. Brooks, C. B. B. Downman and J. C. Eccles.—p. 9.
Dorsal Column Conduction of Group I Muscle Afferent Impulses and Their Relay Through Clarke's Column. D. P. C. Lloyd and A. K. McIntyre.—p. 39.
Cortical Inhibition of Gastric Motility. B. P. Babkin and T. J. Speakman.—p. 55.
Effect upon Blood Pressure of Electrical Stimulation of Tips of Temporal Lobes in Man. W. P. Chapman, K. Livingston and J. L. Poppen. —p. 65.

13:113-186 (March) 1950. **Partial Index**

Electromarcosis: IV. Effects of Square Wave Application to Motor Area Following Destruction of Diencephalon. E. Martini, T. Gualtierotti and A. Marzorati.—p. 113.
Recovery of Skilled Motor Functions After Small Repeated Lesions of Motor Cortex in Macaque. P. Glees and J. Cole.—p. 137.
After-Potentials and Excitability of Spinal Motoneurones Following Orthodromic Activation. C. McC. Brooks, C. B. B. Downman and J. C. Eccles.—p. 157.
Excitation of Single Nerve Fiber by Action Current from Another Single Fiber. I. Tasaki.—p. 177.

Journal of Neurosurgery, Springfield, Ill.

7:97-184 (March) 1950

Skin Resistance Changes in Lower Limb After Lumbar Ganglionectomy. A. H. Ratcliffe and R. P. Jepson.—p. 97.
Mechanism of Skull Fracture. E. S. Gurdjian, J. E. Webster and H. R. Lissner.—p. 106.
Bilateral Torkildsen Procedure: Its Application in Instances of Occlusion of Both Foramina of Monro. H. S. Swanson and G. Perret.—p. 115.
*Experiences with Unilateral Prefrontal Lobotomies for Pain. S. N. Rowe and J. B. Moyar.—p. 121.
Cerebral Angiography in "Brain Tumor Suspects." G. G. Culbreth, A. E. Walker and R. W. Curry.—p. 127.
Cerebral Angiography Recorded Cinefluorographically. H. Gass, S. Weinberg, A. Craig and others.—p. 139.
Histologic Recognition of Sympathetic Tissue. J. T. Robson.—p. 146.
Clovis Vincent: His Life and Main Contributions to Neurosurgery. J. leBeau and J. B. Tavernier.—p. 148.

Unilateral Prefrontal Lobotomy for Pain.—Rowe and Moyar describe observations on 16 patients in whom unilateral lobotomy was done for intractable pain. Twelve patients had carcinoma with metastases. In the first 9 patients the results were somewhat disappointing—only one of these obtained complete relief of pain. No effort was made in these 9 to cut the superior lateral quadrant. This was in part due to the impression that the medial portion of the incision was the most vital. In an effort to improve the results the authors enlarged the frontal lobe incision to include the superior lateral quadrant by using a curved probe and carrying the section to the gray matter. In the last 7 cases the lobotomy was carried out in this manner on the left side. Satisfactory relief of pain was obtained in all. Two of these had involvement of branches of the trigeminal nerve, and in the other 5 the brachial plexus was involved. Previous experience suggested that pain from invasion of cranial or peripheral nerves was not easily amenable to lobotomy. Unilateral operation has advantages over the bilateral. The operative shock is negligible, permitting its use even in debilitated patients, the postoperative convalescence is short and the mental changes are mild and temporary. Preoperative and postoperative mental testing of 4 showed no significant change. It is not difficult to add the operation on the second side if recurrence of pain requires it.

Journal of Nutrition, Philadelphia

40:329-482 (March) 1950. **Partial Index**

Studies in Amino Acid Utilization: IV. Minimum Requirements of Indispensable Amino Acids for Maintenance of Adult Well Nourished Male Albino Rat. E. P. Benditt, R. L. Woolridge, C. H. Steffee and L. E. Frazier.—p. 335.
Effect of Fat Level of Diet on General Nutrition: V. Relationship of Linoleic Acid Requirement to Optimum Fat Level. H. J. Deuel Jr., S. M. Greenberg, C. E. Calbert and others.—p. 351.
Vitamin E Content of Foods. P. L. Harris, M. L. Quaife and W. J. Swanson.—p. 367.
Importance of Dietary Level of Fats on Their Nutritional Evaluation. V. H. Barki, R. A. Collins, C. A. Elvehjem and E. B. Hart.—p. 383.
*Prevention of Caries in Syrian Hamster with Sodium Oxalate. R. M. Twedt and F. A. Cajori.—p. 393.
Factors Affecting Stability of Vitamin A From Cod Liver Oil in Cereal Feeds. A. W. Halverson and E. B. Hart.—p. 415.
Comparative Studies in Niacin Metabolism: Fate of Niacin in Man, Rat, Dog, Pig, Rabbit, Guinea Pig, Goat, Sheep and Calf. W. A. Perlzweig, F. Rosen and P. B. Pearson.—p. 453.
Physiological Properties of Sodium Carboxymethyl Starch. C. C. Wang, M. I. Grossman and A. C. Ivy.—p. 471.

Oxalates and Experimental Caries.—Twedt and Cajori studied the effect of oxalate on the incidence of caries in the Syrian hamster subsisting on a high sugar, cariogenic diet. The extent to which the oxalate ion was incorporated in or adsorbed on the teeth of the experimental animals was determined by chemical analysis. The hamster was chosen as the experimental animal because of the ease with which caries can be produced in this animal on a high carbohydrate diet. Five littermate groups of hamsters were used in these experiments. Beginning at 30 days of age, each group was fed a cariogenic, high-sugar diet consisting of whole wheat flour, corn starch, powdered whole milk and ground, dehydrated alfalfa. In two of the five groups of animals tested 0.5 per cent oxalate was added to replace an equal amount of corn starch. It was found that carious lesions developed in hamsters that did not receive oxalate, with greater incidence in male hamsters. The inclusion of sodium oxalate in the cariogenic diet on a 0.5 per cent level protected the hamsters from caries. Chemical analysis of the tooth substance of the animals protected from caries by oxalate revealed that significant amounts of the oxalate had been incorporated into the teeth.

Journal of Urology, Baltimore

63:569-772 (April) 1950. **Partial Index**

Dorso-Lumbar Approach to Kidney and Adrenal with Osteoplastic Flap. G. Nagamatsu.—p. 569.
Congenital Hydrocalycosis: Hydrocalycosis of Single Renal Calyx in Newborn Infant with Complete Destruction of Kidney. H. M. Weyrauch and A. E. Fleming.—p. 582.
Replacement Lipomatosis and Its Simulation of Renal Tumors: Report of Two Cases. W. A. Simril and D. K. Rose.—p. 588.
Bilateral Renal Hypernephroma: Report of Case. M. K. Bailey and V. H. Youngblood.—p. 593.
Neuroblastoma Involving Urinary Tract. F. G. Harrison, H. L. Warres and J. A. Fust.—p. 598.
Lumbar Ureterolithotomy. V. A. Pate Jr.—p. 613.
Study of Bladder Tumors in Registry of American Urological Association. A. L. Dean and J. E. Ash.—p. 618.
Operative Procedures Within Bladder Conducted Directly Through Urethra Outside Cystoscope. W. M. Coppridge, L. C. Roberts and R. G. Rosser Jr.—p. 630.
Cysto-Urethrography: Its Role in Diagnosis of Neurogenic Bladder. C. Ney and J. Duff.—p. 640.
Role of Nerve Blocks in Management of Traumatic Cord Bladders: Spinal Anesthesia, Subarachnoid Alcohol Injections, Pudendal Nerve Anesthesia and Vesical Neck Anesthesia. E. Bors, A. E. Comarr and S. H. Moulton.—p. 653.
Late Renal Changes in Paraplegia: II. Destructive Lesions. H. S. Talbot and M. K. Lyons.—p. 667.
Functional Evolution of Neurogenic Bladder in Paraplegic Patients. E. P. Stone.—p. 673.
Patent Urachus: Review and Report of Case. J. W. Cherry.—p. 693.
Seminal Tract Tuberculosis: Evaluation of Young's Radical Operation for Eradication of Tuberculosis of Prostate, Seminal Vesicles, Vasa and Epididymides. P. L. Scardino, R. A. Kelley and W. W. Scott. —p. 698.
Adenomatoid Tumor of Epididymis: Report of Case in Newborn. H. M. Burros and P. F. Mayseck.—p. 712.
Torsion of Appendix Testis and Appendix Epididymis: Report of 8 Cases. R. F. Seidel and R. C. Yeow.—p. 714.
Interstitial Cell Tumor of Testicle with Report of Case. D. C. James and R. D. Shupe.—p. 718.
Use of Radio-Active Phosphorus (P^{32}) in Diagnosis of Testicular Tumors: Preliminary Report. B. Roswit, J. Sorrentino and R. Yalow. —p. 724.
Surgical Shock. J. K. Ormond and M. E. Klinger.—p. 729.
Rationale of Sodium Bicarbonate in Excretory Urography. S. Burdon, R. Lich Jr. and J. E. Maurer.—p. 745.
Evaluation of Sterility Problems of the Male. E. J. Farris.—p. 748.

Kansas Medical Society Journal, Topeka

51:101-168 (March) 1950

Penicillin Treatment of Cardiovascular Syphilis. L. H. Coale, M. S. Allen and M. H. Delp.—p. 102.
Present Status of Radioactive Isotopes in Medicine. L. A. Walker. —p. 110.
Compound Injuries of Hand Due to Mechanical Corn Picker. C. A. Hardin and D. W. Robinson.—p. 114.
Subacute Bacterial Endocarditis Due to Streptococcus Fecalis: Failure of Massive Prolonged Penicillin Treatment, Case Report with Autopsy. H. S. Dreher Jr.—p. 119.
Primary Neurofibroma of Vagina: Case Report. J. W. Norris and J. R. Cooper.—p. 128.
Laboratory Methods of Interest to General Practitioner. L. H. Leger.—p. 131.

Maine Medical Association Journal, Portland

41:53-92 (March) 1950

Endometriosis. E. E. O'Donnell.—p. 53.
Epiphyseal Injuries. L. J. McDermett.—p. 56.
Multiple Primary Carcinomata. F. M. Dooley.—p. 63.
*Management of Placenta Praevia. J. V. Ward.—p. 68.
Modern Concepts of Polio and Its Treatment. T. A. Martin.—p. 70.
Optic Neuritis Aided by Sinus Surgery: Case Report. J. J. Lappin. —p. 72.

Management of Placenta Previa.—According to Ward hemorrhage during the last trimester of pregnancy is potentially dangerous and may have various causes, among which are granulating erosions of the cervix, carcinoma, ruptured varices, premature separation of the placenta and placenta previa. Every patient with last trimester bleeding should be hospitalized and the cause of bleeding determined. Contrast cystograms and vaginal examination will aid in determining the presence and type of placenta previa. Accurate knowledge of the type of placental implantation is the most important factor in planning management. If placental implantation is central, cesarean section is the best procedure as it is in most lateral previas. The blood status should be determined and transfusions given as required. If gentle sterile vaginal examination reveals that the os is completely covered by placenta, the physician should refrain from further examination and prepare for abdominal delivery. If the os is partially covered, the membranes should be ruptured. If bleeding persists after rupture of the membranes, the physician should apply scalp traction and deliver by forceps when the cervix is completely dilated and the head is below midpelvis.

Michigan State Medical Society Journal, Lansing

49:129-256 (Feb.) 1950. **Partial Index**

Physiological Basis of Gall-Bladder Disease and Treatment. B. C. Lockwood.—p. 161.
Iritis and Iridocyclitis: Review of Past and Present Ideas. N. Bentley. —p. 166.
*Amebiasis in Veterans. H. C. Conn, P. H. Feldman and A. Taylor. —p. 174.
Psittacosis Treated with Penicillin and Chlortomycetin. I. D. Fagin and J. N. Mandlberg.—p. 182.
Atropine Toxicity in Treatment of Schizophrenia. G. R. Forrer.—p. 184.
Deep Infections of Neck. R. J. McQuiston.—p. 186.
Advances in Surgery of Colon and Rectum. H. E. Bacon and T. F. Moran.—p. 192.
Epidemiology—Old and New. J. E. Gordon.—p. 194.
Clinical Pathologic Conference. D. H. Kaump, M. R. McQuiggan and L. J. Bailey.—p. 200.
Glaucoma in General Practice. R. O. Rychener.—p. 205.
Antihistaminic Drugs: Oral, Parenteral and Topical Uses in Allergic Diseases. S. J. Levin and S. S. Moss.—p. 207.
Use of Aureomycin in Common Respiratory Diseases. E. W. Schrick. —p. 211.

Amebiasis in Veterans.—Conn and his associates of the gastrointestinal department of the Veterans Administration Regional Office, Detroit, investigated all patients referred to the department, all ex-prisoners of war and a large number of veterans complaining of recurrent attacks of malaria. Of 1,091 veterans, 309 (28.3 per cent) were found infected with Endamoeba histolytica. The incidence of E. histolytica in ex-prisoners of war was high. There was no significant variation in the infection rate with E. histolytica between the different theaters of war. Chronic amebiasis should be considered in cases with a diagnosis of chronic recurrent malaria. More adequate training of laboratory technicians is advised in the technic of stool examination. The frequency of amebiasis in veterans presents a serious public health problem. The treatment for amebiasis was as follows: (1) diiodo-hydroxyquinoline, 0.63 Gm. three times a day for 20 days, and (2) carbarsone, 0.25 Gm. twice daily for the following ten days. The veterans were then instructed to return for stool examination every two months for six examinations. The effectiveness of this therapy is controversial. The authors found 12 patients still infected with E. histolytica after one course of therapy.

Military Surgeon, Washington, D. C.

106:173-258 (March) 1950. **Partial Index**

Health Resources and National Security. N. C. Kiefer.—p. 173.
Recent Advances Affecting Care of Military Casualties. I. S. Ravdin. —p. 177.
Chronic Progressive Ophthalmoplegia Externa (Von Graefe's Disease). R. L. Harris.—p. 181.
Significance of Canine Leptospirosis in Military Preventive Medicine. T. C. Jones.—p. 183.
Use of Drugs in Aviation Medicine. F. W. Oberst and H. M. Ely. —p. 192.
Use of Physical and Occupational Therapy in Peripheral Nerve Lesions of Leprosy. V. R. Hatch.—p. 197.
Nursing Education Today—Civilian and Military. Educational Program Available for Student Nurses in Schools of Nursing Today. A Gelinas.—p. 203.
Preparation of Practical Nurse. E. C. Phillips.—p. 209.
Educational Program for Flight Nurses. V. Zeller.—p. 217.

Minnesota Medicine, St. Paul

33:113-216 (Feb.) 1950

Vasodilator—Roniacol: Report on Preliminary Clinical Study. S. M. White.—p. 133.
Associated Diseases of Skin and Eye. E. P. Burch and C. D. Freeman. —p. 147.
Compression Fractures of Spinal Column. J. C. Ivins.—p. 154.
Treatment of Deafness with Histamine. G. L. Loomis.—p. 157.
Tuberculosis of Uterus: Report of 3 Cases. W. P. Mulvaney.—p. 160.

33:217-312 (March) 1950

Neuropsychiatric and Laboratory Observations in 147 Patients Following Cranio-Cerebral Injuries. A. Olsen and R. Rossen.—p. 233.
Primary Tumors of Optic Nerve: Report of 2 Cases of Glioma. R. C. Horns.—p. 241.
Surgical Management of Massive Hemorrhage from Gastric and Duodenal Ulcers. D. C. MacKinnon.—p. 244.
Dissecting Aneurysm of Aorta: Report of Case Diagnosed Two and One-Half Years Before Death by Rupture. J. S. Blumenthal. —p. 255.
Spontaneous Remission in Subacute Leukemia: Report of Case. J. F. Hammersten and C. B. Chapman.—p. 259.
Health is a Community Problem. D. A. Sher.—p. 263.

New Jersey Medical Society Journal, Trenton

47:97-144 (March) 1950

Present Aspects of Melanomas. S. Goldberg.—p. 100.
*Treatment of Arthritis with "Anathion." L. Libenson and W. F. J. Wittenborn.—p. 105.
Muscle Pains of Asthma. S. Gordon.—p. 110.
Otogenic and Tuberculous Meningitis: Problem in Differential Diagnosis. B. Steiner and J. Lang.—p. 112.
Avulsion of Distal Biceps Brachii Tendon. R. R. Goldenberg.—p. 114.
Important Diagnostic Errors in Diabetes. B. Saslow.—p. 116.
Mass Chest X-Ray and Follow-Up—Municipal Problem. I. Willner. —p. 120.
Uterine Suspension: New Modification of Simpson Operation. M. E. Baker.—p. 123.
Dental Crown in Nasopharynx Following Endotracheal Anesthesia. I. M. Schnee.—p. 124.

Treatment of Arthritis with Sodium Tetrathiodiglycollate.—Libenson and Wittenborn treated 25 patients with rheumatoid arthritis, 4 with osteo-arthritis and 5 with fibrositis with sodium tetrathiodiglycollate ("anathion"). Ten milligrams of the drug were given intravenously every other day. No other medication was administered. None of the patients showed toxic manifestations during and after treatment, including patients receiving over 60 injections. Most of the patients showed improvement after receiving 10 to 15 injections. Some patients, particularly those in an advanced stage of the disease, showed no relief until after they had received 30 to 35 injections, after which remarkable improvement was observed. Some patients with rheumatoid arthritis and particularly those affected with fibrositis showed improvement after receiving only 5 to 8 injections. This treatment is based on the property of sodium tetrathiodiglycollate to release sulfur at the tissue level when injected intravenously in aqueous solution. The element thus released reacts with the SH compounds present in the tissues much as gold salts do but without destroying these SH compounds and without toxic effects. Unlike colloidal sulfur,

V 1
195

the particles of which are relatively large and variable in size, the element released by sodium tetrathiodiglycollate is molecular sulfur (S_8), which acts as such at the tissue level without producing anaphylactoid shock characteristic of the colloidal dispersions. The clinical results show that sodium tetrathiodiglycollate is a highly effective therapeutic agent for the treatment of rheumatic diseases, particularly rheumatoid arthritis and fibrositis.

New York State Journal of Medicine, New York

50:497-624 (March 1) 1950

Induced Cardiac Anoxemia and Coronary Artery Disease. S. F. Alexander, S. J. Wittenberg, E. T. Brown and A. Koffler.—p. 535.
Abdominal Surgical Emergencies in the Aged. C. W. Cutler Jr.—p. 541.
Maternal Mortality in Queens County, 1937-1949. G. Schaefer.—p. 545.
Emergency Therapeutic Bronchoscopy in the Critically Ill Asthmatic. H. Markow.—p. 549.
Treatment of Heart Failure: Digitalis and Mercurial Intoxication, Penicillin, Dicumarol, Major Surgery. A. M. Master, H. L. Jaffee and W. R. Dorrance.—p. 553.
Toxicity of Mesantoin. A. L. Deutsch, M. B. Milberg, H. A. Abel and E. B. Grossman.—p. 560.
Medical Treatment for Acute Calcifying Bursitis (Bursoarthritis). E. Leibholz.—p. 565.
Serodiagnostic Screening Test for Cancer. I. H. Olenik.—p. 573.

50:625-752 (March 15) 1950

Carcinoma of Colon and Rectum. H. B. Sutton and J. W. Hirshfield.—p. 673.
Treatment of Sebaceous Cysts. E. F. Kelley.—p. 679.
Delayed Treatment of Appendiceal Abscess. P. Ladin.—p. 681.
Sickle Cell Disease and Pregnancy. C. W. Mueller, R. S. Bila and W. A. Lapp.—p. 686.
Diverticula of Colon: Report of 274 Cases. E. J. Morhous.—p. 689.
Effect of Glutamic Acid on Borderline and High-Grade Defective Intelligence. F. T. Zimmerman and B. B. Burgemeister.—p. 693.
Oral Chlorophyll Fractions for Body and Breath Deodorization. F. H. Westcott.—p. 698.

North Carolina Medical Journal, Winston-Salem

11:49-104 (Feb.) 1950

PANEL DISCUSSION ON CONGESTIVE HEART FAILURE

Mechanism of Heart Failure. A. T. Miller Jr.—p. 49.
Diagnosis of Chronic Congestive Heart Failure. R. L. McMillan.—p. 52.
Dietary and Diuretic Management of Congestive Failure. E. A. Stead Jr.—p. 54.
Digitalis Therapy in Congestive Heart Failure. E. S. Orgain and R. A. Broome Jr.—p. 54.
Clinical and Roentgen Aspects of Non-Opaque Pulmonary Foreign Bodies. G. J. Baylin and T. L. Martin.—p. 59.
Use of Beta Irradiation in Ophthalmology. F. W. Stocker and S. D. McPherson Jr.—p. 65.
Effects of Lobotomy as Observed in North Carolina State Hospital. S. E. Glass.—p. 67.
Useful Drugs in Geriatric Practice. A. Freedman.—p. 71.
Malignant Melanoma of Nasal Cavity: Review of American Literature and Report of Case. W. P. Alsup.—p. 76.
*Aureomycin and Chloromycetin in Therapy of Herpes Zoster. M. Bolus and J. S. Wilkinson.—p. 80.

Aureomycin and Chloramphenicol in Herpes Zoster.—Bolus and Wilkinson present 4 cases of herpes zoster in which they used aureomycin in conjunction with low voltage roentgen therapy. The aureomycin was given in doses of 250 mg., four times a day on the first day and three times a day for several days thereafter. Roentgen treatment was given in the form of several applications of one-eighth or one-fourth of the erythema dose. Results were good in all 4 cases. A fifth patient with herpes zoster was treated with chloramphenicol (chloromycetin®) in doses of 250 mg. three times a day for three days. Here again the results were good.

Oklahoma State Medical Assn. Jour., Oklahoma City

43:85-132 (March) 1950

Heart Disease. W. T. McCollum.—p. 88.
Treatment of Congestive Heart Failure. J. B. Morey.—p. 93.
Prevention of Dental Caries. F. P. Bertram.—p. 95.
Roentgen Diagnosis of Cardiac Lesions. W. E. Brown.—p. 98.
Roentgen Diagnosis of Antrum of Stomach. S. Pollack.—p. 100.

43:133-178 (April) 1950

Bleeding in Early Pregnancy. W. C. Lindstrom.—p. 136.
Common Complaints of Pregnancy. L. D. Northrup.—p. 140.
Clinical and Laboratory Considerations in Diagnosis of Pancreatic Cancer. J. E. Berk.—p. 143.
Jaundice, Concepts with Reference to Hepatitis. J. R. Taylor.—p. 149.
Management of Syphilis in Pregnancy. D. V. Hudson.—p. 153.

Pennsylvania Medical Journal, Harrisburg

53:97-192 (Feb.) 1950

Surgical Aspects of Gastric and Duodenal Ulcer. J. D. Stewart, H. W. Hale Jr. and J. E. Hix.—p. 113.
Evaluation of Function in Pulmonary Disease by Physiologic Tests. H. L. Motley.—p. 119.
Anesthesia for Outpatients. R. L. Patterson.—p. 128.
Clinical Use of Newer Antibiotics. H. A. Zintel.—p. 131.
Some Aspects of Relation of Cholesterol to Vascular Disease. J. H. Peters.—p. 136.

53:193-320 (March) 1950

Use and Impact of Antibiotic Therapy. P. H. Long.—p. 209.
Psychiatric Unit in General Hospital: Community Needs and Resources. E. L. Horst.—p. 219.
Management of Patient with Pain Due to Advanced Carcinoma of Prostate. A. K. Olsen.—p. 227.
Immediate Treatment of Soft Tissue Injuries. S. M. Dupertuis.—p. 230.
Hypothyroidism in Infancy and Childhood. R. M. Keagy.—p. 232.
Treatment of Fractures of Shaft of Radius and Ulna. L. F. Bush.—p. 235.
Use of Tantalum Gauze Mesh in Repair of Fascia-Deficient Hernias. J. V. Scott.—p. 238.
Chemotherapy and Antibiotics in Urology. S. W. Mulholland.—p. 240.
*Treatment of Acute Coronary Occlusion with Anticoagulants. W. L. Mullins, M. K. Helz, J. D. Purvis Jr. and others.—p. 245.
Management of Imperforate Anus. C. E. Koop.—p. 248.
Acute Obstructive Laryngitis in Children. F. W. Davison.—p. 250.

Anticoagulants in Acute Coronary Occlusion.—Mullins and his associates report on 237 patients with clinically proved acute coronary occlusion who were admitted to the cardiac service of the Mercy Hospital of Pittsburgh between June 1946 and June 1949 and were subjected immediately to anticoagulant treatment. Forty-five were admitted in such serious condition that they died in 72 hours and were excluded from the present study, as were all in the conrol group dying within the same time limit. Of the remaining 192 patients 170 had adequate treatment. Of these fully treated patients, 13 (7.6 per cent) died during hospitalization of such complications as congestive failure, pulmonary edema, diabetic hypoglycemia complicating a third coronary occlusion, high grade aortic stenosis, multiple pulmonary infarction and hypertension. The control group of 120 persons comprised all those with acute coronary occlusion admitted to the same cardiac service from June 1, 1944 to June 1, 1946. There were 27 deaths (22.5 per cent). Thromboembolic complications were reduced from 11.7 per cent in the control group to about 1 per cent in the treated group.

Public Health Reports, Washington, D. C.

65:315-350 (March 10) 1950

Method to Determine Levels of Immunization, Medical and Nursing Services in Prenatal and Infant Care. R. P. Kandle and H. Goetz.—p. 315.
Activities of Mental Health Nurse. A. L. Henderson.—p. 331.
Seasonal Changes in Abundance of Fleas on Rats at Baltimore, Md. J. Yeh and D. E. Davis.—p. 337.

65:351-382 (March 17) 1950

Malaria Control in Iran: Résumé of Reports Made by Dr. Justin Andrews and Lawrence R. Hall. M. Ziony.—p. 351.
Field Test of Efficiency of Rodenticide Compound W.A.R.F. 42. M. W. Schein.—p. 368.
Principles on Education and Utilization of Sanitary Engineers.—p. 372.
Recovery of Brucella Melitensis from Hog. S. R. Damon and J. H. Scruggs.—p. 374.

South Carolina Medical Assn. Journal, Florence

46:69-104 (March) 1950

Treatment of Pneumonia in Children. F. F. Schwentker.—p. 69.
Use of Isuprel in Treatment of Asthma. K. T. McKee and V. Moseley.—p. 72.
Lessons from Maternal Mortality Studies. J. D. Guess.—p. 74.
Osteopsilosis: Case Report. R. W. Leminack.—p. 77.

South Dakota Journal of Medicine, Sioux Falls

3:39-62 (Feb.) 1950

Relations of Pathologist to General Practitioner. L. W. Larson.—p. 39.
Problems Relating to Intestinal Obstruction. C. Dennis.—p. 44.
Rupture of Pregnant Uterus into Vagina. G. E. Whitson.—p. 47.

3:63-102 (March) 1950

Recurrent Gallstone Ileus. J. V. McGreevy and E. J. McGreevy.—p. 63.
Radiologic Treatment of Malignant Lesions of Bladder, Prostate, Kidneys and Testicles. R. E. Fricke.—p. 67.
Destructive Aspects of Atomic Explosion. E. DeCourcey.—p. 71.
Socialized Medicine in Britain. L. Abel.—p. 74.

Surgery, St. Louis

27:321-484 (March) 1950

Results of Treatment of Carcinoma of Lip. G. E. Ward and J. W. Hendrick.—p. 321.
Significance of Fixation in Operable Carcinoma of Large Bowel. E. D. Sugarbaker and H. M. Wiley.—p. 343.
Primary Carcinoma of Infrapapillary Portion of Duodenum. T. A. Shallow, F. B. Wagner Jr. and W. B. Mangra.—p. 348.
Biopsies of Pancreatic Masses. J. G. Probstein, L. A. Sachar and W. Rindskopf.—p. 356.
Follow-Up Report of 102 Cases of Perforated Peptic Ulcer. C. A. Luer.—p. 360.
*Carcinoma of Thyroid Gland: Incidence and Mode of Origin. M. O. Young.—p. 364.
*Nitrogen Mustard in Treatment of Inoperable Bronchiogenic Carcinoma. J. P. Lynch, P. F. Ware and E. A. Gaensler.—p. 368.
Pleural Reactions to Polythene Prosthesis After Pneumonectomy: Experimental Study. J. R. Rydell and G. M. Higgins.—p. 386.
Gastric Secretory Response to Intravenously Administered Amino Acid Mixtures. P. R. Sharick and D. A. Campbell.—p. 396.
Bacitracin Levels in Cerebrospinal Fluid After Parenteral Injections: Bacitracin Therapy of Experimental Staphylococcal Meningitis in Dog. P. Teng and F. L. Mckeney.—p. 403.
Cancer of Breast in Advanced Age Groups. B. F. Byrd Jr.—p. 414.
Reconstruction of Femoral Artery for Arteriosclerotic Thrombosis. W. D. Holden.—p. 417.
Acute Torsion of Gall Bladder. M. E. Peck and J. J. Feehan Jr. —p. 423.
Colles Fracture—Causative Mechanism. R. M. Lewis.—p. 427.
*Carotid Body Tumors: Case Report of Bilateral Carotid Body Tumors with Unusual Family Incidence. E. F. Lewison and T. Weinberg. —p. 437.
Ligature Carrier and Knot Tier. H. B. Larzelere.—p. 449.

Carcinoma of the Thyroid.—The data forming the basis of this report by Young were obtained from a study of the clinical records and the pathologic specimens of 174 patients from whom thyroid tissue was surgically removed. Nine of the 174 (5.2 per cent) had carcinoma. The malignant growths were relatively more frequent in men. Hyperthyroidism was present in 76 patients. One small carcinoma was unexpectedly encountered in a diffuse toxic goiter. The incidence of carcinoma in patients with hyperthyroidism was thus 1.3 per cent. There were 8 carcinomas (8.2 per cent) in the 98 patients who did not have hyperthyroidism. All the 8 carcinomas were palpable as single nodules and occurred in patients having nodular enlargements. Four of the 9 cases of carcinoma were not recognized before operation. Six of the 9 patients with carcinoma were over 60 years of age. One patient was only 23 years old. The high incidence of carcinoma in single nontoxic nodules of the thyroid gland is noteworthy. It has been assumed that most carcinomas of the thyroid originate by a process of "malignant degeneration" within preexisting benign lesions. If this were true, then hyperplasia, the benign process most closely resembling neoplasia, would predispose to carcinoma. There appears to be no relation between Graves's disease and carcinoma. The carcinomas of the thyroid usually begin as single nodules. Solitary nodules are dangerous, not because they may be the site of "malignant degeneration" in the future but because a high percentage of such nodules are carcinomas. The long duration of some thyroid carcinomas prior to the appearance of clinical signs has often been interpreted as evidence of "malignant degeneration" of benign nodules. The mere fact that a tumor has existed for many years previous to its surgical removal does not necessarily indicate that the growth was benign at its inception. Thyroid carcinomas grow at an accelerated rate in the late stages. This late change is often interpreted clinically as marking the time of transition from a benign to a malignant growth, but their slow rate of growth in the early stages does not justify conservatism. On the contrary, the chances for cure are greater, making early treatment even more worth while.

Nitrogen Mustard in Inoperable Bronchiogenic Carcinoma.—Lynch and his associates selected for nitrogen mustard treatment only patients in whom carcinoma has been proved inoperable by exploratory thoracotomy or distant metastases. The nitrogen mustards are not sufficiently selective to kill all tumor cells without also destroying other rapidly proliferating vital tissues. Treatment was expected to be only palliative. Roentgen therapy was not instituted because conventional radiation therapy has not prolonged life in most cases of bronchogenic carcinoma and it was felt that evaluation of nitrogen mustard treatment would be difficult if radiation therapy were added. The schedule recommended by the National Research Council (0.1 mg. per kilogram of body weight repeated for four consecutive days) was the most frequently used dosage. Response to the drug varied greatly. Consequently, in 23 of the 71 courses of treatment given, a larger dose was used. The total dose ranged from 16 to 55 mg. In 10 instances treatment was started with a 4 mg. dose and increased daily until there was a depression of the white blood cell count. In this group as much as 3.0 mg. per kilogram, or a total of 180 mg., was given. The authors state that 69 per cent of the patients experienced subjective relief and 54 per cent showed objective improvement, but all types of improvement were temporary. The incidence of palliation was related to the type of tumor. Improvement was obtained in 83 per cent of undifferentiated tumors, 50 per cent of squamous type tumors, 33 per cent of adenocarcinomas and 11 per cent of epidermoid carcinomas. It was felt that a larger dose than that usually employed resulted in a larger number of good clinical results. Toxic reactions consisting of gastrointestinal disturbances and lymphatic and bone marrow depression were encountered with no fatal results. Nitrogen mustard therapy usually does not prolong life, but it does have a place in the palliative treatment of inoperable bronchiogenic carcinoma.

Carotid Body Tumors.—Lewison and Weinberg report the case of a man, aged 36, with a painless swelling on both sides of the neck. The family history was considered irrelevant until a pathologic diagnosis of carotid body tumor was made. It was then that the patient recalled that three of his first cousins, on his father's side, had had unusual tumors of the neck. Inquiry verified the familial incidence of carotid body tumors. The preoperative diagnosis in this case had been a cervical adenopathy of unknown cause. Operation revealed a highly vascular tumor which adhered to the bifurcation of the carotid artery. The tumor was removed by blunt dissection without sacrificing either of the great carotid vessels. The glossopharyngeal and hypoglossal nerves were retracted out of the operative field. Prior to performing the operation on the other side, the authors deemed carotid compression exercises advisable. The left carotid artery was compressed digitally against the large anterior tubercle of the transverse process of the sixth cervical vertebra for two minutes three times daily, for a period of four weeks; it was felt that the development of cerebral collateral circulation was thus enhanced. The tumor was completely excised. The authors stress the danger to life from primary ligation of the carotid vessels. Systematic compression of the common carotid several times a day for a few weeks prior to the operation aids in establishment of collateral circulation in the cerebral vessels. A simple decompressive operation with section of the sternocleidomastoid muscle may be all that is indicated in some cases.

Virginia Medical Monthly, Richmond

77:105-154 (March) 1950

Punch Biopsy of Liver. C. M. Caravati and S. H. Sandifer.—p. 107.
Segmental Hydro-Ureter—Report of Case. C. P. Howze and J. H. Hill.—p. 109.
Psychosomatic Considerations in General Practice. K. W. Berblinger. —p. 113.
Method for Prevention of Suicidal Deaths Caused by Barbituric Acid Derivatives. R. M. Miskimon and R. R. Miskimon.—p. 119.
Surgical Aspects of Neurofibromas. C. Williams Jr.—p. 123.
Review of Colon Cancer—Presentation of Fourteen Cases Concerning Cancer of Colon. G. J. Levin.—p. 131.
Diabetes Insipidus with Sensitivity to Posterior Pituitary Hormone—Case Report. J. Natt.—p. 134

Yale Journal of Biology and Medicine, New Haven

22:303-386 (March) 1950

Litter Seriation and Invasion of Fibrosarcomas in Mice. L. C. Strong.—p. 303.
Electronic Bridge for Use with Glass Electrode. D. I. Hitchcock and A. Mauro.—p. 309.
Experimental Production of Cretin-Like Rats. R. J. Barrnett.—p. 313.
Description of Toxin in Toxoplasmosis. D. Weinman and H. J. Klatskko.—p. 323.
Age Incidence of Poliomyelitis in Connecticut 1921-1947. J. I. Pichel. —p. 327.
Endocrine Regulation of Amino Acid and Protein Metabolism During Fasting. H. D. Haberman.—p. 341.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted.
Single case reports and trials of new drugs are usually omitted.

British Journal of Dermatology and Syphilis, London

62:1-52 (Jan.) 1950

Molecular Structure of Skin, Hair and Related Tissues. W. T. Astbury.—p. 1.
Investigations on Value of Calciferol Therapy in Lupus Vulgaris. M. Kuiter and H. D. Groen.—p. 15.
Tuberculosis Cutis Ulcerosa Hyperergica. B. J. v. d. Meer.—p. 19.
Fixed Eruption and Urethritis Due to Phenolphthalein. H. Haber. —p. 22.
Atypical Neurodermatitis. A. D. Porter and H. Haber.—p. 25.

Edinburgh Medical Journal

56:573-640 (Dec.) 1949

Surgical Management of Malignant Colon. G. T. Mowat.—p. 573.
Intracranial Tumours in the Aged. J. Pennybacker.—p. 590.
Diastole. B. Williamson.—p. 601.
Obstetrical Management of Pregnant Tuberculous Patient. W. C. Armstrong.—p. 612.
General Observations on Pregnancy and Tuberculosis with Special Reference to Collapse Therapy. J. P. McIntyre.—p. 615.

Indian Medical Gazette, Calcutta

84:481-530 (Nov.) 1949

Schilder's Disease. S. K. Mukherjee, J. Banerjee and P. K. Guha. —p. 483.
Three Cases of Encephalitis Lethargica. V. M. Bhat.—p. 485.
Study of Bacteriological Types of C. Diphtheriae in Bombay. D. W. Soman and S. K. Nail.—p. 488.
Infective Hepatitis. M. W. Williams.—p. 491.
Amino-Acid Crystals in Urine. M. W. Williams.—p. 495.
*Aureomycin in Typhoid Fever: Preliminary Report of Clinical Trial in 4 Cases. J. C. Patel, D. D. Banker and C. J. Modi.—p. 497.

Aureomycin in Typhoid.—Patel and co-workers administered large oral doses of aureomycin to 4 adults in whom the diagnosis of typhoid was established by blood culture. The treatment was continued five to 10 days, the total doses amounting to 32 to 50 Gm. Treatment was started between the twelfth and nineteenth day of the disease. The blood cultures became negative in 48 to 72 hours. The clinical recovery, however, was not striking, the temperature settling down after seven to 10 days. The course of the disease was definitely made milder, and no complications developed. All 4 patients, who were in a severely toxemic state on admission, survived. The only toxic reactions of the drug observed were transient anorexia, nausea and slight looseness of the bowel.

Journal of Pathology and Bacteriology, Edinburgh

61:499-650 (Oct.) 1949. **Partial Index**

Prognosis in Cutaneous and Ocular Malignant Melanoma: Study of 222 Cases. C. J. E. Wright.—p. 507.
Case of Intracerebral Xanthomatosis with Pituitary Involvement. R. J. R. Cureton.—p. 533.
Red-Cell Changes in Burns and Acute Anhydraemia. C. H. Cooray and S. N. De.—p. 541.
Splenic Lesions in Periarteritis Nodosa. J. Ball and J. Dawson. —p. 569.
Pigment Patterns in Epithelial Tumors of Skin. B. Lennox. —p. 587.
Cystic Hamartoma of Lung in New-Born Infant. M. R. Thomas. —p. 599.
Effect of Anterior Pituitary Extract in Alloxan Diabetes. R. F. Ogilvie.—p. 607.
*Mural Thrombosis in Renal Artery and Its Relation to Atherosclerosis. B. E. Heard.—p. 635.

Mural Thrombosis in Renal Artery; Relation to Atherosclerosis.—Heard points out that the thickening of the intima in atherosclerosis is made up of fat and fibrous tissue and sometimes also of calcium. Until recently it was assumed that the intimal fibrosis developed as a growth of connective tissue in response to the irritative effect of the fatty substances, but Duguid in 1946 and 1948 reintroduced the idea that mural thrombosis may be the basis of atheroma, calling attention to the fact that thrombi can frequently be demonstrated in thickened aortas. Heard reasons that one could expect mural thrombosis and related changes not only in the aorta but also in other arteries, especially those in which atherosclerosis is common. He made a detailed study of 50 pairs of renal arteries, in search of these deposits, and took sections from both the thickened and the apparently normal portions. The material was taken at autopsies performed in routine hospital and medicolegal cases. Heard found small mural thrombi in relation to the intima in 19 out of 50 pairs of renal arteries, most of them being situated in the atherosclerotic first centimeter. They were less frequent in the less atheromatous middle third and were not seen at all in the normal parts of the vessels. This is further evidence that mural thrombosis is an important factor in the development of atherosclerotic thickening of arteries.

Lancet, London

1:381-428 (March 4) 1950

Blood *pH* and Blood-Flow During Muscular Activity. K. Gollwitzer-Meier.—p. 381.
Bronchiectasis in Primary Tuberculous Lesions Associated with Segmental Collapse. J. C. Roberts and L. G. Blair.—p. 386.
*Streptomycin and Primary Lung Lesion in Tuberculosis in Children. J. Lorber.—p. 389.
Cystic Pulmonary Fibrosis in Generalised Scleroderma: Report of 2 Cases. R. E. Church and A. R. P. Ellis.—p. 392.
Arterial Calcification: Personal Observation. A. Abrahams.—p. 395.
Streptomycin in Soft Sore: Observations on Clinical and Experimental Infections. R. R. Willcox.—p. 396.
Perforation of Duodenal Ulcer Fifteen Months After Vagotomy. H. A. Daniels.—p. 398.
*Chloramphenicol in Whooping-Cough: Report on 5 Severe Cases. J. Macrae.—p. 400.

Streptomycin and the Primary Lung Lesion in Tuberculous Children.—Lorber observed the effect of streptomycin on the primary complex in the lung of 20 children with miliary tuberculosis and meningitis and of 2 children with tracheobronchial tuberculosis. It was not possible to demonstrate any beneficial effect of streptomycin on the primary complex or the symptoms attributed to it. In 8 cases tubercle bacilli persisted in stomach washings for over six months after treatment was started. It seems unwise on the present evidence to treat uncomplicated primary tuberculosis with streptomycin.

Chloramphenicol in Whooping Cough.—Macrae treated 5 severely ill infants with a poor prognosis but at a relatively early stage of whooping cough, before secondary infections had developed. There was no clinical doubt of the diagnosis. The minimum daily dose was 50 mg. per kilogram of body weight. Each baby received 0.25 Gm. as a first dose and 0.125 Gm. every six hours thereafter for seven days and then 0.125 Gm. every 12 hours for seven days. There was an immediate improvement in general condition in all the cases, followed by rapid recovery.

Medical Journal of Australia, Sydney

1:65-100 (Jan. 21) 1950

*Sudden Death or Alleged Accidental Suffocation in Babies. K. Bowden. —p. 65.
Infant Mortality in New South Wales. G. J. Cuthbert.—p. 72.
Pulmonary Tuberculosis in Mental Hospitals of Western Australia. F. Prendergast and A. King.—p. 78.
Diagnostic Problems in Renal Failure. R. Whishaw.—p. 79.

Alleged Accidental Suffocation in Babies.—Bowden discusses the possible causes of death in infants who are found face downward or beneath the bed clothes, whose sudden death is attributed to accidental suffocation. Inspection of the baby in his bed just after death may show considerable cyanosis, especially of the ears, face and lips, further suggesting that death has occurred from suffocation. Careful inquiry shows that many of these children were not in perfect health before death. Past statistics on accidental suffocation have erred on

the side of gross exaggeration in Australia and in the United States. A thorough microscopic investigation, including organs the appearance of which seems to the naked eye to be normal, will rarely reveal accidental suffocation. The author lists data on 40 babies who died suddenly. Most cases are explained by the fact that such disease as otitis media, upper respiratory tract infection and meningitis may overwhelm an apparently well infant.

Proceedings of Royal Society of Medicine, London

43:61-136 (Feb.) 1950. **Partial Index**

Aural Cholesteatoma—or Cholesteatosis: Review. G. Young.—p. 75.
Behaviour of Uterus in Early Pregnancy. A. C. Palmer.—p. 99.
Rarer Causes of Abdominal Pain in Pregnancy. G. Lennox.—p. 105.
Problems in X-Ray Diagnosis of Cancer of Stomach. S. C. Shanks. —p. 117.
Intracranial Suppuration. J. Taylor.—p. 129.

Quarterly Journal of Medicine, Oxford

19:1-96 (Jan.) 1950

*Mode of Action of Salicylate in Acute Rheumatic Fever. J. Reid, R. D. Watson and D. H. Sproull.—p. 1.
Treatment of Spontaneous Hypoglycaemia Due to Hyperplasia of Islets of Langerhans. G. Graham and W. G. Oakley.—p. 21.
Clinical and Pathological Study of Renal Disease: Part II. Disease Other Than Nephritis. R. Platt and J. Davson.—p. 33.
Congenital Toxoplasmosis. W. G. Wyllie and H. J. W. Fisher. —p. 57.
Postmenopausal Osteoporosis, Clinical Manifestations and Treatment with Oestrogens. I. A. Anderson.—p. 67.

Salicylate in Rheumatic Fever.—According to Reid and his associates the effect of salicylate on acute rheumatic manifestations is so striking that if its exact mode of action were discovered the nature of the disease process might be inferred. An attempt to define the mode of action of the drug was made by investigating simultaneously factors that may be responsible for the relief of acute rheumatic manifestations and the return of the erythrocyte sedimentation rate to normal. This involved observations on the acid-base and volume changes of internal body fluids in 7 adults with rheumatic fever while they were being treated with salicylate. The principal pharmacologic actions of the drug are stimulation of protein catabolism and aggravation of respiratory alkalosis. These changes relieve the manifestations of acute rheumatic fever and are also responsible for a clinical syndrome which is characterized by hyperpnea, slowing of the pulse rate, peripheral vasodilatation, nausea, vomiting, tinnitus, deafness and drowsiness. These symptoms appear while acute rheumatic manifestations are being relieved, and the promptness of relief of rheumatic symptoms and the severity of the syndrome are related to the plasma salicylate level; the higher this level, the quicker the disappearance of fever, tachycardia, joint pain and swelling and the more intense the symptoms of the salicylate syndrome. The increased protein breakdown alters the distribution of water within the body. The first change is a reduction in cellular water, which is associated with a temporary increase in plasma and interstitial fluid volumes and is followed by a diminution in both, as indicated by a fall in plasma volume and by diuresis. The relief of joint pain and swelling and a fall in the erythrocyte sedimentation rate are both associated with the removal of water from cells and plasma. This dehydrating effect follows a reduction in cellular and plasma protein, which results from increased protein catabolism.

Tubercle, London

31:25-48 (Feb.) 1950

Tuberculosis Survey in Western Samoa. B. C. Thompson.—p. 26.
Frequency of Erythema Nodosum Among Inverters. G. Hertzberg and L. Ridderveld.—p. 33.
Pulmonary Puncture Technique for Induction of Artificial Pneumothorax. S. A. Levy, S. H. Dressler and A. Hurst.—p. 35.
Tuberculosis in Malaya. A. Morland.—p. 38.

31:49-72 (March) 1950

Collapse Therapy and Bronchus. L. E. Houghton.—p. 50.
Case of Acute Asphyxia Produced by Rupture of Caseating Mass into Bronchus, Followed by Recovery. H. Williams.—p. 63.

Acta Medica Scandinavica, Stockholm

136:159-240 (Jan. 16) 1950. **Partial Index**

Thymol and Dilution Turbidity Tests, Relation to Gamma-Globulin Content of Serum and Morphology of Liver Parenchyma. C. K. V. van Dommelen and C. Francke.—p. 177.
Intramuscular Administration of Heparin. G. Bauer, H. Boström, E. Jorpes and S. Kallner.—p. 188.
*Hypertensive Encephalopathy Associated with Hypochloremia. T. Hilden.—p. 199.
*Course and Prognosis of Hodgkin's Disease. A. Videback.—p. 203.
Concentrations of Dihydrostreptomycin in Blood, Serum and Urine, Increased by Solution in Procaine-Pectine. F. Zini.—p. 209.
Endocrine Imbalance in Rheumatoid Arthritis and Rheumatoid Spondylitis: Hyperglycemia, Unresponsiveness, Insulin Resistance, Increased Gluconeogenesis and Mesenchymal Tissue Degeneration: Preliminary Report. R. Liefmann.—p. 226.

Hypertensive Encephalopathy Associated with Hypochloremia.—Hilden observed 5 patients with acute cerebral disturbances, hypertension, a transient fall in plasma chlorides and increase in blood urea. Plasma chlorides and blood urea values should be investigated in all cases of acute encephalopathy. The relationship between electrolyte disturbance and cerebral symptoms is of particular interest because of a salt-poor diet widely used in the treatment of hypertension. The restriction of sodium chloride may result in hypochloremia and an increase in blood urea, causing cerebral symptoms or even death. Three of the 5 patients were treated by parenteral administration of isotonic sodium chloride solution, which seemed to produce some improvement.

Course and Prognosis of Hodgkin's Disease.—Videback states that 172 patients with Hodgkin's disease, 90 male and 82 female subjects were treated at the Radium Center in Copenhagen during the period 1930-1945. The diagnosis was confirmed in all cases by histologic examination. When the first foci were discovered, daily doses of 100 or 200 r, up to a total of 500 to 1,500 r, depending on effect, region and tolerance, were applied with a filter of 0.5 mm. of copper and a distance of 40 to 60 cm. Thorough clinical examinations, roentgenograms of the skeleton and mediastinum and blood examinations were made. When there was fever or when the general condition was poor, the irradiation was stopped or continued with great care. In cases of generalized disease universal radiation was sometimes tried, but as a rule the effect was doubtful. The treatment was often supplemented with blood transfusions when the general condition was poor, when there was temperature of a septic type or severe anemia. Twenty-nine of the patients are still alive. The average duration of the illness was 3.3 years for male and 3.8 years for female subjects (extremes, 2 months and 13 years). The prognosis appears to be most favorable in children and least favorable for patients over 60. There was no sex difference in this respect.

Anales de Medicina y Cirugia, Barcelona

26:459-550 (Dec.) 1949. **Partial Index**

*Arteritis of Temporal Artery. J. Trias Pujol.—p. 463.
Antabuse in Treatment of Alcoholism. A. Martí Granell.—p. 469.

Arteritis of Temporal Artery.—Trias Pujol believes that arteritis of the temporal artery is an atypical form of periarteritis nodosa because of similar clinical and histologic pictures. A nonspecific bacterial or virus infection, allergy, drug intoxication or prolonged exposure to cold seem to be the causal factors. The symptoms subside after some three months or are replaced by a syndrome resembling that of adrenal insufficiency with asthenia and arterial hypotension. The prognosis is favorable. Acute pain is relieved by an excision of 1 cm. of the temporal artery.

Archivio di Scienze Biologiche, Bologna

33:399-502 (Sept.-Oct.) 1949. **Partial Index**

Determination of Effects of Oxygen on Cardiac Frequency. E. Meda and A. Aiello.—p. 472.
*Cardiovascular Changes Induced by Electroshock. G. de Bastiani and O. Pinotti.—p. 489.

Cardiovascular Changes Induced by Electroshock.—De Bastiani and Pinotti found that electroshock in dogs gave rise to hypertension and bradycardia, which was followed by tachycardia. The effect on the heart was similar in normal and in decerebrate animals. They concluded that the cardiovascular alterations produced by the electroshock are caused

V 1
195

by the direct stimulation of the bulbar pontine centers of the vascular system and the heart. The violent tonic and clonic muscular contractions and the variations in the intrathoracic and the intraabdominal pressures played but a secondary part in the causation of hypertension produced by the electroshock.

Journal de Chirurgie, Paris

66:1-96 (Jan.) 1950. **Partial Index**

Critical Study of Mechanism of Pain in Amputees: New Aspects of Prophylaxis and Treatment. R. Leriche.—p. 5.
*Possibilities of Hepatectomy in Treatment of Tumors of Liver. J. Sénèque and R. Aurousseau.—p. 22.

Hepatectomy for Tumors.—Sénèque and Aurousseau performed a partial hepatectomy with the electric bistoury in 3 patients, 1 woman aged 39 with cavernous angioma of the left lobe, a woman aged 65 with epithelioma of the right lobe and 1 male infant aged 20 months with epithelioma of the right lobe. The first patient recovered, the second patient was in good health five years after the intervention and the third patient had a recurrence six months later. A considerable amount of the liver parenchyma may be removed, provided that satisfactory vascularization is preserved and the remaining parenchyma is unimpaired. Various function tests, such as induced galactosuria and Quick's benzoate test, determination of prothrombinemia and particularly Hanger's cephalin-cholesterol flocculation test and MacLagan's thymol test, should be performed before intervention. Preoperative treatment may require rehydration, several small blood transfusions, a diet rich in carbohydrates, proteins and, particularly, amino acids, and administration of vitamins A, B and K. The right subcostal approach, parallel with the thoracic border, is preferred by the French surgeons for the right lobe and a median subumbilical incision for the left and the quadrate lobes. Hemostatis is secured by ligature of the large vessels and suture of the cut surface.

Nordisk Medicin, Stockholm

43:243-282 (Feb. 10) 1950. **Partial Index**

Lobectomy and Pneumonectomy in Pulmonary Tuberculosis. C. Crafoord.—p. 243.
Curare in Anesthesia in Thoracoabdominal Surgery. B. Göthman. p. 246.
*Curare in Prophylaxis in Electroshock. P. Flordh.—p. 250.
Intravenous Prostigmine Depot as Routine Procedure in Curare Electroshock. W. Silfverskiöld.—p. 254.
*Treatment of Neurosyphilis with Hypertherm. K. Nørgaard.—p. 257.
Cancer of Stomach. C. K. Schaanning.—p. 260.
*Implantation of Pituitary Glands in Rheumatoid Arthritis. G. Edström.—p. 263.
Curare and Spinal Anesthesia, Dangerous Combination: Preliminary Report. N. Hultengren.—p. 267.
Intracranial Hemorrhage Following Permanent Wave. V. Gaustad. —p. 269.

Curare in Prophylaxis in Electroshock Treatment.—Flordh reports on the use of *d*-tubocurarine in electroshock treatment of 131 patients. The dose was 0.15 mg. per kilogram of body weight, which gives moderate curarization. Ergographic examination was made to exclude myasthenia gravis. All patients received neostigmine intravenously. There were few side effects, and these affected mainly the upper respiratory tract and could always be controlled by keeping the respiratory passages open and occasionally by artificial respiration with the oxygen bag (Salvator). Curare is contraindicated in myasthenia gravis and in extreme restlessness. It may be given in all other types of cases but is especially recommended for men, for elderly patients and all patients with signs of skeletal disease and skeletal injury. Roentgen examination of the dorsal portion of the spinal column was made before and after treatment in 90 cases. Comparison with 68 cases previously treated without curare and similarly examined showed a pronounced reduction in the frequency of fractures. With curare prophylaxis the indications for electroshock treatment can be extended to include cases in which the treatment was formerly contraindicated.

Hyperthermia in Neurosyphilis.—Of 91 patients with neurosyphilis given hyperthermia-arsphenamine-bismuth treatment, 61 were followed up for six months to four years. The results showed 37 to be well or considerably improved, 14 slightly improved and 10 not improved. Of the 32 with "active" spinal fluid, 23 were well or considerably improved, 8 somewhat improved and one not improved. The Wassermann test disclosed a return to normal in 13 of the active and 4 of the inactive cases. Hyperthermia therapy is of great value in neurosyphilis, and, since it is associated with fewer risks and inconveniences than malaria treatment, it may eventually be adopted as the standard method, unless penicillin therapy alone is accepted as sufficient.

Implantation of Pituitary Glands in Rheumatoid Arthritis.—In Edström's first case of pituitary gland transplantation, reported on in 1942, in which there were rheumatoid arthritis with cartilage and bone destruction in many joints and endocrine disturbance with amenorrhea and alopecia totalis, resistant to therapy, prompt improvement followed the second implantation of pituitary glands. The improvement still persisted after ten years' observation. In 10 moderately severe cases, without bone and cartilage destruction, of four months' to four years' duration, implantation of pituitary glands was done in September-October 1949. In 1 case glands from a 7 month fetus and in the others glands from freshly slaughtered calves were implanted subcutaneously in the gluteal region. Of the 9 patients observed for two or three months, 6 were subjectively and objectively free from symptoms in the joints, 1 patient was considerably improved, 1, with superimposed enterocolitis was somewhat improved and 1 was unchanged. The improvement occurred immediately after the implantation. The effect of the implantation was good in all patients under 40. The number of eosinophils in the circulating blood decreased for several days, and in some cases there was a pronounced increase in the 17-ketosteroid excretion in the urine for 24 hours.

Presse Médicale, Paris

58:65-76 (Jan. 25) 1950. **Partial Index**

Contribution to Study of Hydration in Obesity. R. Cachera, M. Lamotte and J. Dubrisay.—p. 65.
Diabetes Mellitus and Tuberculosis; Comment on 1,000 Observations of Diabetes Mellitus. Darnaud, Baudot, Ferret and Denard. —p. 67.
*Accidents Due to Use of Talc in Surgical Intervention. C. Oliver, L. Bertrand and G. Cerbonnet.—p. 69.

Granuloma Due to Talc.—Oliver and co-workers report 5 cases of granuloma due to talc occurring after a subtotal hysterectomy, and after a gastrectomy for peptic ulcer. The introduction of talc into the operative field may cause abscess or parietal fistula. Intestinal obstruction may occur weeks or months after intervention, and a granulomatous tumor may result even after several years. The appearance of the granuloma is not characteristic. Microscopic examination reveals a fibrous and giant cell reaction of the connective tissue. A dense network of collagenous fibers supports the multinuclear masses of protoplasm and numerous round cells, but caseation does not occur. Talc crystals may be easily observed in polarized light because of their double refraction. The lesion is chronic. Talc should be excluded from the operating room. It should not be used as a dusting powder for surgical equipment. Potassium bitartrate may be used to dust the surgeon's glove.

Rivista di Clinica Pediatrica, Florence

47:529-572 (Aug.) 1949. **Partial Index**

*Meningeal Reaction in Rheumatic Fever. L. Nassi.—p. 529.

Meningeal Reaction in Rheumatic Fever.—Nassi directs attention to the importance of the benign types of meningitis which appear early in the course of the first attack of rheumatic fever. They disappear within three days in the majority of the cases. There is headache, stiff neck, the Kernig, Brudzinski and Lasègue signs and red dermographism. The cerebrospinal fluid suggests either serous or lymphocytic meningitis. Relapses occur and may cause blindness or death or the disease may develop into subacute or chronic meningitis. The treatment consists of spinal taps and of intrathecal administration of small doses of penicillin or streptomycin. Treatment of the first acute attack of rheumatic fever consists of administration of penicillin, sulfanilamide, sodium salicylate and vitamin C. This is continued for one month after control of the acute symptoms in order to control the rheumatic manifestations and the residual meningeal inflammation. Fourteen cases in children between the ages of 4 and 10 years are reported on.

Schweizerische medizinische Wochenschrift, Basel

80:69-92 (Jan. 28) 1950. **Partial Index**

Anatomic Contribution to Problem of Atelectasis. W. Behrens.—p. 69.
*Metabolic Disturbances Observed in Epidemic of Influenza A in Basel During Winter of 1948-1949. H. Baur and M. Eyland.—p. 72.
Cause of Continued Blurred Vision Long After Removal of Corneal Foreign Body. K. Lenggenhager.—p. 75.
Clinical Study of New Sulfonamide Preparation: Gantrisin (3,4-Dimethyl-5-Sulfanilamido-Isoxazol). H. Langemann.—p. 78.
Local Treatment of Tuberculous Disorders with PAS (Para-Aminosalicylic Acid). E. Wilhelmi.—p. 82.
*Experimental Studies on Value of Postoperative Penicillin Prophylaxis for Primary Wound Treatment According to Friedrich. F. Holle, T. Dimmling, E. Rieffert and E. Vierheilig.—p. 84.

Metabolic Disturbances During Influenza.—Baur and Eyband describe epidemiologic, clinical and serologic studies carried out during an epidemic of influenza A in Basel, Switzerland, during the winter of 1948-1949. Metabolic studies were made on 24 patients with uncomplicated influenza and in 12 with complications. The acute febrile stage lasted two to four days in the uncomplicated cases and was usually mild. The complications were bacterial pneumonias in 10 cases, sinusitis in 1 and myocarditis and nephritis in another. Metabolic studies revealed mild impairment of the protein metabolism. Some of the flocculation tests resulted in somewhat pathologic reactions, and there was a slight tendency to increased urea values and to albuminuria. The slight increase in gamma globulin does not correspond to the immunologic antibody titer and is probably the result of a slight increase in nonspecific antibody globulins. The slight increase in alpha and gamma globulins that characterizes simple influenza is in contrast to the primary decrease in albumins and the secondary increase in alpha globulin and fibrinogen in the cases in which influenza is complicated by pneumonia, and the latter changes being typical of infectious-toxic processes. Disturbances in the carbohydrate metabolism are much severer in influenza than are the changes in the protein metabolism; they are also much more frequent than they are in acute bacterial infections. They are manifested in various pathologic reactions, particularly in the galactose tests and in the occurrence of diastasuria. These disturbances in the carbohydrate metabolism are due to a toxic effect of influenza on the pancreas and to extrainsular disturbances in the regulatory functions of carbohydrate metabolism.

Penicillin in Primary Wound Treatment.—Holle and his co-workers describe experiments on animals which proved the considerable, but still limited value of the prophylactic use of penicillin in the primary care of wounds. Immediate local and systemic administration of large doses of penicillin greatly reduces the risk of infection and should be employed routinely, particularly in cases in which treatment has been somewhat delayed. In mixed infections with anaerobic organisms primary wound care according to Friedrich's concept could be postponed beyond the five hour and to the 10 hour limit. The time factor is relative and depends on the severity of the infection and the degree of wound contamination. Penicillin prophylaxis permits a three to five hour extension. The effect of penicillin on gas gangrene infection (Welch-Fraenkel) is favorable, but, with regard to tetanus, serum prophylaxis is superior to the preventive use of penicillin. Serum prophylaxis, therefore, cannot be dispensed with.

Semaine des Hôpitaux de Paris

26:219-254 (Jan. 22) 1950

One Hundred Cases of Typhoid Fever Treated with Chloramphenicol (Chloromycetin®). E. Benhamou.—p. 219.
Clinical Aspects of Typhoid Fever Treated with Chloramphenicol (Chloromycetin®). E. Benhamou, F. Destaing, E. Albou and others.—p. 219.
New Biologic Problems of Typhoid Fever Treated with Chloramphenicol (Chloromycetin®). E. Benhamou, F. Destaing and A. Sorrel.—p. 230.
*Management of Chloramphenicol (Chloromycetin®) Therapy of Typhoid Fever. E. Benhamou, F. Destaing and A. Sorrel.—p. 232.

Chloramphenicol (Chloromycetin®) Therapy of Typhoid.—Benhamou and co-workers treated 100 typhoid patients with chloramphenicol (chloromycetin®). Treatment was instituted with 4 Gm. of the drug (sixteen tablets within the first hour) and continued with 3 Gm. daily until the temperature returned to normal. Maintenance treatment consisted of 1.5 Gm. daily, one tablet (0.25 Gm.) every four hours for five additional days. It appeared advisable, however, to continue the treatment with 2 Gm. daily for fourteen to fifteen days in order to prevent recurrences. The initial dose and the daily doses were frequently doubled in severe cases, particularly in those with encephalitis. At present the authors are inclined to use smaller doses combined with aureomycin. Hyperimmunized anti-Vi rabbit serum and CO_2 globulins obtained from convalescent serum should be administered in hypertoxic cases in addition to chloramphenicol. Seventy-six of the 78 patients with typhoid without encephalitis, and 86 of the 100 patients, including those with encephalitis recovered. Untoward reactions consisted of glossitis, cheilitis, pharyngitis, dysphagia and heart burn. Chloramphenicol is the drug of choice in all types of typhoid. Systematic vaccination against the disease is indispensable in the prophylactic treatment because of the possible occurrence of intestinal hemorrhage, intestinal perforation, encephalitis and collapse

Wiener klinische Wochenschrift, Vienna

62:21-36 (Jan. 13) 1950. **Partial Index**

*Prophylaxis of Endemic Goiter. H. J. Wespi-Eggenberger.—p. 21.
Formation of Heinz Bodies. E. E. Reimer.—p. 26.

62:37-56 (Jan. 20) 1950. **Partial Index**

*Prophylaxis of Endemic Goiter (Concluded). H. J. Wespi-Eggenberger.—p. 40.
Preliminary Report on Therapeutic Application of Substances with Vagotonic Action in Pulmonary Tuberculosis. A. Frank.—p. 44.

Prophylaxis of Endemic Goiter.—According to Wespi-Eggenberger the populations of the Swiss cantons Freiburg and Waadt are living under exactly the same climatic and geologic conditions. The boundary line between the two cantons is irregular, and some communities belonging to one canton are surrounded by communities belonging to the other. There is a high incidence of goiter in the Freiburg communities, while those of Waadt are nearly free of goiter. Waadt has its own salt mines, while Freiburg gets its salt from the Rhinish salt mines. The salt from the mines of Waadt contains iodine; that from the Rhenish salt mines does not. Because of the belief that the administration of iodized salt does not involve any risk, that salt is a natural carrier of iodine and that goiter depends on iodine deficiency, majority of the Swiss cantons introduced prophylaxis of endemic goiter by iodizing not only the salt used for cooking purposes but also the denatured sodium chloride fed animals. Bakeries, slaughter houses and canning factories were provided with iodized salt. The addition of 10 mg. of potassium iodide to 1 Kg. of salt was sufficient for the daily supply of 100 gammas of iodine, the optimum dose for the prophylaxis of endemic goiter in human beings. Fifteen per cent of the newborn infants in the canton of Bern had large goiters before and only 0.2 per cent after the introduction of iodized salt. While 50 to 70 per cent of the young men of military age were not fit for military service because of goiter before the introduction of the iodized salt, the ratio fell to 1 per thousand after the introduction of the iodized salt. Seventy per cent of the school children had goiters before the introduction of the iodized salt, after which 70.5 per cent of the school children had normal thyroids. Untoward reactions to iodized salt were not reported in Switzerland. Iodine has become an indispensable nutriment, an "anorganic vitamin." "Functional iodine deficiency theory" is suggested as a new concept, according to which the endemic goiter is the reaction of the thyroid to the exogenous iodine deficiency. Iodine deficiency causes inadequate production of the thyroid hormone; the deficiency of the hormone causes an activation of the thyroid through mediation of the hypophysis and the peripheral nerves. The thyroid becomes more active and larger, until a goiter develops. Prophylaxis with iodized salt is a satisfactory means of preventing goiter and cretinism.

BOOK NOTICES

The reviews here published have been prepared by competent authorities and do not represent the opinions of any official bodies unless specifically stated.

The Practice of Urology. By Harry C. Bolnick, M.D., Professor and Chairman of the Department of Urology, Chicago Medical School, Chicago. Volumes I & II. Cloth. $24. Pp. 616; 617-1245, with 1350 illustrations. J. B. Lippincott Company, 227-231 S. 6th St., Philadelphia 5; Aldine House, 10-13 Bedford St., London, W.C.2; 2083 Guy St., Montreal, 1949.

This book is a welcome and much needed addition to a field that is far from overcrowded. It is well organized and remarkably comprehensive for a work of this kind. The division of material into two volumes follows the generally accepted method of placing the basic sciences connected with urology and lesions of the lower part of the urinary tract in one volume, and lesions of the kidneys and ureters and surgical urology in a second. The author has made an excellent attempt to present up-to-date concepts of diagnosis and therapy and avoid hackneyed discussions of time-worn subjects.

Volume I contains a well written section on embryology and anatomy of the genitourinary tract. A section on laboratory methods by Dr. Israel Davidsohn is especially well written and valuable in a book of this kind. It contains practically all the laboratory data that any urologist would require in routine practice. Chemotherapy in urinary infections has been capably covered by Dr. Russell D. Herrold. Three new chapters, on sterility in the male, sexual neuroses and neurogenic dysfunction of the bladder, offer interesting and timely instructions in poorly understood but increasingly important genitourinary subjects.

In volume II the diseases of the kidneys have been covered in an orderly and complete manner. Chapter 32, which deals with renal injuries, should be given special attention by the reader. This highly controversial subject is well analyzed and accompanied with sound conservative advice to the urologist who is just beginning practice. A chapter on transurethral surgery by Dr. Rubin H. Flocks is well written, instructive and amply illustrated.

If there is any just basis for constructive criticism of these two volumes it should probably be directed toward some of the illustrations. For instance, the urograms are not presented in a uniform manner. Some are negatives, while others are positives, which tends to confuse the reader. Also, many of the urograms are of such small size that it is with difficulty that one can discern the pathologic lesion which is illustrated. The same criticism might be directed toward the illustrations of surgical operations. Many of these illustrations are rather old, have been borrowed from miscellaneous articles and lack the uniformity and smoothness that could have been achieved if one artist had illustrated the entire surgical section with drawings of one style.

Electromyo-Mechanographic Registrations of Passive Movements in Normal and Pathological Subjects. By Tore Broman, M.D. Paper. 10 Danish crowns. Pp. 64, with 25 illustrations. Ejnar Munksgaards Forlag, Nørregade 6, Copenhagen, 1948.

This translated monograph brings forth experimental evidence of the variations in electromyograms caused by influences other than pathologic physiology, as well as changes in abnormal neuromuscular states. The tools used are the electromyograph and a mechanical device for control of movement. In normal subjects, slow movements within certain amplitudes did not evoke any activity record on the electromyogram. Variation in speed and range elicited side effects. Passive shortening increased tremor in the Parkinson syndrome. Broman's ideas about stretch reflex and the rebound phenomenon in spasticity due to lesion of the upper motor neuron coincide with interpretation in this country. In the Parkinson tremor activity was reduced by a passively fixed stretch position. The occurrence of contraction in a contralateral part varied from patient to patient as activity was recorded. Contraction after-effect in the same part on passive test movement was noted.

Some normal subjects are able to relax, showing no electromyographic response, but others show a response throughout passive movement and while the muscle is in a state of maximal shortening. This variation of ability to relax from person to person may lead to a variation of electromyograph recording which could lead to false interpretation, as the author points out. There is much chance for variation in technic with mechanical shortening and lengthening, by passive compression and stretching. Involuntary cooperation or participation by the patient may interfere with relaxation and results of the test. The method described—electromyograms in combination with mechanical registration as a control—produces results which should be more accurate and easier to evaluate than the manual movement alone.

During slow passive movements, or during the initial part of quick movements, the resistance of an arm to passive movement is in all cases, normal as well as pathologic, the same if relaxation is good. There is no sort of varying "muscle tone" during rest. The writer suggests use of the expression "background activity" to denote "a sum of all impulses, mostly of a suprasegmental genesis, which incessantly, but with varying frequency, converge at the motoneurons." This experimental work emphasizes the need for an understanding of normal electromyograms, of some of the normal reflex activities that may give variation of recordings and of the characteristic tracings related to disease states.

Malaria: The Biography of a Killer. By Leon J. Warshaw, M.D. Cloth. $3.75. Pp. 348. Rinehart & Company, Inc., 232 Madison Ave., New York 16, 1949.

Here is a lively and for the most part accurate account of the growth of knowledge about malaria from ancient to recent times. The Laveran, King, Manson, Ross, Grassi, Watson and Gorgas stories are well told, and a chapter is devoted to the eradication of Anopheles gambiae from Brazil. There are also accounts of the development of cinchona, quinine and newer synthetic antimalarials. Various control agents are discussed, including repellents and DDT. Finally, there are chapters on malaria in war, therapeutic malaria and "unsolved problems." The author is not a malariologist, but in this book he shares with the reader some highlights of his intensive delving into the vast literature of the disease. His chapters have been well planned, and he is clear and effective in his phraseology. There is a short bibliography and a brief index; the book is well edited, printed and bound.

The principal criticism of this history of malaria is that certain recent developments have been neglected, and the reader may fail to bring the present situation into proper focus. It is possibly still true that malaria throughout the world kills or sickens more human beings than any other disease. Certainly, in many parts of Africa, the Near East, India, Burma, Indonesia, Indochina and South China, no other preventable disease does so much harm. But times are changing, and the author has not successfully described the dramatic improvement in malaria control since the thirties. For example, when he estimates (p. 6) that throughout the United States "there is an average of 4,000,000 cases every year," he misses present facts by a wide margin. In the February 1950 *Bulletin* of the Communicable Disease Center of the U. S. Public Health Service, Dr. Andrews, deputy director, stated that the total number of malaria cases reported in the United States between 1945 and 1948, by years, were: 61,411; 47,903; 16,205, and 9,868. Figures are not given for 1949, but it is probable that the total will not exceed 5,000. Such figures are never accurate, but these are reasonably

correct. No doubt some cases are not reported, but it is also true that infections acquired overseas have been included. However, to all who are in close touch with the subject it is obvious that the time has now passed when one counts malaria victims by the million in the United States. There is good reason to believe that malaria will cease completely to be an endemic disease in this country within the next few years. The reviewer regrets that a suitable account of how this has come about was not included in the book under review.

Equally interesting would have been references to the way in which malaria is being driven out of Venezuela, Trinidad and Tobago, British Guiana, Brazil, Italy, Sardinia, Corsica, Cyprus, Greece, Mauritius and elsewhere. For instance, the Roman Campagna, where the author suggests (p. 5) an "almost universal infection with malaria" is now almost free from this disease. Malaria remains a menace to welfare in many areas, but on a widespread front it is being attacked energetically and successfully by governments and by international agencies such as the World Health Organization and United Nation's International Children's Emergency Fund. It is not an adequate reflection of the present situation to say (p. 310) that through the United Nations and the World Health Organization "much has been done to ease the suffering in these stricken areas." The point is that today, with modern insecticides, equipment and organization, malaria has been eradicated as a public health problem in a significant number of communities where it was of major importance only a few years ago. Taking advantage of this fact, the World Health Organization is demonstrating practical malaria eradication measures in many malarious areas.

However, histories can never quite catch up with time, and the foregoing criticism should not hide the sound values of this "biography" of malaria. Laymen interested in science, specialists concerned with various phases of malariology and physicians with an appetite for medical history will enjoy the book, which in style is neither strictly scientific nor completely popular but which is excellent reading.

Personality Maladjustments and Mental Hygiene: A Textbook for Students of Mental Hygiene, Psychology, Education, Sociology, and Counseling. By J. E. Wallace Wallin, Ph.D., Visiting Professor of Clinical Psychology, Upsala College, Upsala. Second edition. Cloth. $5. Pp. 581. McGraw-Hill Book Company, Inc., 330 W. 42d St., New York 18; Aldwych House, Aldwych, London, W.C.2, 1949.

The author, a psychologist, presents his views and concepts of what constitutes mental health and how to preserve it, as well as what is meant by personality maladjustment and how to correct it. The text is amply illustrated by "case histories," and the author attempts to organize the material to help the student use it for reference in his undergraduate work. Its didactic nature should have considerable appeal to the student even though it points up some of the difficulties one encounters in categorizing such subject matter.

In the preface to the second edition mention is made, somewhat apologetically, that the chapters on psychoanalysis had been retained because students continue to show interest in them; they had been placed at the end so as to be omitted if such is desired. This attitude illustrates the general psychologic orientation of the author, which places a good deal of importance on early conditioning, education, habits, will power and the like while correspondingly deemphasizing unconscious motivation of behavior. After an excursion into the field of endocrinology, definitions of mental hygiene are elaborated on and eight criteria for mental adjustment described. In the chapter on maladjustments the development of pathologic fears in children is discussed in detail which, according to the author, is to be sought and found in parental attitudes that had conditioned the child. Prevention by proper influence is illustrated through case examples. The teacher's role in child development is also given a good deal of attention, and the need for and importance of well adjusted educators is stressed.

The chapter on psychotherapeutic methods will create some confusion because of the author's inclusion of such nonpsychotherapeutic measures as psychosurgery and electroshock. The informed medical reader will also be perturbed to find such statements as "defensive malingering in the functional neuroses" or implications that neurotic illness is an "alibi." The author's emphasis on suggestions how to conquer fear, even though he acknowledges their limitations, may also reinforce the all too common belief that neurotic patients need no more than a good talking to or a greater degree of "will power."

These and some other serious defects of the book are in part offset by the pleasant style of writing and the optimistic nature of the approach advocated by the author. His awareness of how handicaps can be overcome by greater utilization of personality assets should be a reminder that there are other and sometimes better ways of approaching mental health than by undue preoccupation with the origin of personality maladjustment.

Surgery of Repair: Principles, Problems, Procedures. Volumes I and II. By John F. Pick, S.B., M.M., M.D., Clinical Assistant Professor of Surgery, University of Illinois Medical School, Chicago. Cloth. $24. Pp. 432; 435-825, with 1094 illustrations. J. B. Lippincott Company, 227-231 S. 6th St., Philadelphia 5; Aldine House, 10-13 Bedford St., London, W.C.2, 2083 Guy St., Montreal, 1949.

This is a two volume work. The first volume begins with an interesting chapter on the history of plastic surgery. The next two chapters contain discussions on principles of physiologic and psychologic considerations and are followed by a chapter on scope and limitations of the field. The next two chapters on history taking and physical examination include interesting photographs and diagrams, as do the chapters on armamentariums, diagnosis, the planning of treatment, activation of the surgical plan, preoperative preparation, the surgical process and anesthesia. There is detailed consideration of skin incisions based on the natural direction of lines of tension over the skin covering the body, technic of suturing, postoperative management, complications, redressing and feeding. There can be little disagreement with much of what is written, but there are many platitudes expressed, and this is perhaps a little out of place in a treatise written not for the neophyte primarily but for the surgeon who has had appreciable training and experience. For example, the author describes his "number language," employed in the operating room. This has undoubtedly proved itself to his satisfaction, but is doubtful that another reading his work will adopt it for his own use. Again one reads (page 118) "It is important to the patient's bodily economy as well as to the surgeons peace of mind that the patient get a good night's rest and be in a healthy frame of mind the morning of surgery." Such statements are self evident but consume space and the reader's time.

Space does not permit a detailed review of this comprehensive treatise. The many chapters include most of the subject matter generally considered in the field of plastic surgery. Possibly the title of the work is too inclusive for even the extended work that these two volumes represent; probably "Plastic Surgery" might have been more appropriate. Reparative surgery includes the whole question of bone grafting, yet this is dealt with briefly. Also, the problem of how to deal with overirradiated tissues (roentgen rays and radium) is dealt with in but a few paragraphs.

The treatment of several topics deserves special commendation, such as the chapter on "Surgical Geometrics" which deals with multilinear closures and "three dimensional problems." The chapter on burns is informative and concisely written, but there could hardly be universal agreement with some of the statements made by the author, such as "A severe burn stands out at once as the most formidable physiologic disaster and surgical tragedy known to medicine." Nor would many surgeons accept the statement "He who knows all there is to know about burns and their consequences knows most of what there is to know about surgery." The description of various types of flaps and methods of skin grafting as found throughout several chapters is perhaps one of the most important features of this work. A helpful feature is the extensive bibliography listed after each chapter.

The volumes are attractive, the paper is of high quality, the printing is in large type, which facilitates rapid perusal, and the photographs are in color and black and white. Line drawing, diagrams and charts are for the most part original and are highly instructive. The volumes should be in every hospital and medical school library and should be readily at hand for those who do plastic and traumatic surgery.

A Textbook of Neuropathology with Clinical, Anatomical and Technical Supplements. By Ben W. Lichtenstein, B.S., M.S., M.D., Associate Professor of Neurology, University of Illinois College of Medicine, Chicago. Cloth. $9.50. Pp. 474, with 282 illustrations. W. B. Saunders Company, 218 W. Washington Sq., Philadelphia 5; 7 Grape St., Shaftesbury Ave., London, W.C.2, 1949.

This is an excellent textbook and reference for the neurologist, neurosurgeon and psychiatrist and for the neophyte in neuropathology, written by one eminently well qualified in this field. The presentation of the material indicates maturity and originality of thought based on the study of the author's own material. For the most part he has used good judgment in allotting space to various subjects. The approach is functional and anatomic. An outstanding feature is the excellence and number of illustrations. One cannot avoid learning if he only flips the pages. Bibliographies are ample, well chosen and well arranged. Controversial aspects of particular subjects are discussed briefly, and dogmatism is conspicuously absent. The style of writing is perhaps a little heavy, and the interest is enlivened only occasionally by a few remarks of human interest. The clinical supplement is a good feature, but it is doubtful whether the neuroanatomic supplement is of much value to anyone. It could be deleted in future editions. Pathologists and technicians will find the technical supplement of value.

Electrotherapy and Light Therapy with Essentials of Hydrotherapy and Mechanotherapy. By Richard Kovacs, M.D., Professor of Physical Medicine, New York Polyclinic Medical School and Hospital, New York. Sixth edition. Cloth. $10. Pp. 739, with 369 illustrations. Lea & Febiger, 600 S. Washington Sq., Philadelphia 6, 1949.

The author has been a pioneer in physical medicine in this country. This new sixth edition of his book brings up to date information on certain important aspects of physical medicine. It will be useful both as a reference book and as a textbook for psychiatrists, general practitioners and specialists in various fields who are called on to prescribe physical therapy for their patients. The author has been primarily interested in providing detail on the scientific basis for the medical use of electrical currents and radiant energy. The basic concepts of electrophysics which are essential to a proper understanding of the use of electricity in medicine are presented in a sound and elementary form which is easily understandable to the average physician, with his limited background in physics and mathematics. The physiologic effects of the various electric currents on the body tissues are described. Practical descriptions of acceptable technics for using the low voltage currents for muscle and nerve stimulation, ion transfer and electrolysis are included. The use of electrodiagnostic procedures in the study of various neuromuscular disorders is described in detail.

The book contains complete information on high frequency currents and apparatus such as are used in short wave, long wave and microwave diathermy. The material on microwave diathermy is entirely new and gives the present status of knowledge regarding the clinical uses of microwave diathermy. There is a section on hyperthermia, or artificial fever therapy, and also a section on electrosurgery, with a description of the technics used in electrodesiccation, electrocoagulation and electrosurgical cutting. The clinical applications of electrosurgical technics are described. Infra-red and ultraviolet radiation are discussed in the section on light therapy. The author evaluates the various sources of both ultraviolet and infra-red radiation and indicates their physiologic effects and clinical applications. Other procedures in physical medicine, such as hydrotherapy, use of cold, massage, therapeutic exercise and rehabilitation, are described in brief chapters. This portion of the book is less comprehensive than the sections on electrotherapy and light therapy.

The last section of the book describes the application of physical therapy to various conditions encountered in general medical and surgical practice, as well as in such specialties as rheumatology, orthopedics, otolaryngology and dermatology. The indications for, and the evaluation of the effects anticipated from the use of, the various physical therapeutic methods are described for each pathologic entity. The author has been assisted with the preparation of the section on applied physical therapy by several outstanding specialists in their respective fields.

The chapters are well organized and well outlined, providing the reader with easy access to material he may desire for reference. Considerable new material has been added, and bibliographies are up to date. Illustrations have been selected with care and are used liberally to illustrate various points, from basic electrophysics to details of clinical technics. The author has included a glossary with simple but clear definitions of terms used in electrophysics as well as in physical medicine. This glossary would be of value to the student physical therapist, as well as to a physician or medical student using the book. Through its past editions this book has established a definite place for itself in the literature pertaining to physical medicine. The new edition should continue to maintain its place as a standard textbook and reference book in this field.

Planning for Health Services: A Guide for States and Communities. Federal Security Agency, Public Health Service, Public Health Bulletin No. 304. Paper. 20 cents. Pp. 69. Supt. of Doc., Government Printing Office, Washington 25, D. C., 1949.

This little pamphlet is an important document with which every medical society officer and every other progressive doctor should become familiar. It describes a technic of community planning and motivation which is growing in popularity. This procedure consists essentially in getting together the representative elements of a community and putting before them certain problems which agitate groups within the community, or are being brought to the attention of the people, from the county, from outside or from the state level. Such a technic can provide much democratic usefulness, but it also is subject to great abuse if community groups do not understand or know how to employ it. If doctors, or anybody else, do not attend such a conference, the viewpoint of the absent group can be expected to be inadequately represented. Since vital questions of medical care and public health will be settled ultimately by the citizenship of a community, it seems obvious that each citizens' group has not only an opportunity but an obligation to see that others are adequately informed of their attitudes. It is gratifying to note in this presentation, that medical groups have had their due share in leadership. This pamphlet is one of the good results of the National Health Assembly.

Principles and Practice of Plastic Surgery. By Arthur Joseph Barsky, M.D., D.D.S., Attending Plastic Surgeon, Beth Israel Hospital, New York City. Cloth. $10. Pp. 499, with 1029 illustrations. Williams & Wilkins Company, Mt. Royal & Guilford Aves., Baltimore 2, 1950.

The contents of this book have been so arranged that the first six chapters deal with the fundamental principles of plastic surgery. The remaining 10 chapters are devoted to the part played by plastic surgery in the various specialties. As one reads this book he is impressed by the fact that the author has garnered much of his material from his own actual clinical experience. Although other methods and procedures are mentioned, those which he has found to serve him best are thoroughly discussed and stressed. This is an admirable feature of this work.

The chapters which were particularly well done are: chapter 3, on flaps and tube pedicles; chapter 11, dealing with lips, cheeks and jaws; chapter 13, on the neck and trunk, and chapter 16, pertaining to prostheses. Figures 762 and 763 on page 361, which pertain to the correction of hypertrophied and ptotic breasts, could have been made as close-up views, thus stressing the position and conditions of the transplanted nipples.

At the end of each chapter is a rather inclusive and helpful bibliography. The book is well written and well organized. It can be recommended as a reference for those interested in plastic surgery.

Electronics: Experimental Techniques. By William C. Elmore, Associate Professor of Physics, Swarthmore College, Swarthmore, Pa., and Matthew Sands, Assistant Professor of Physics, Massachusetts Institute of Technology, Cambridge. Cloth. $3.75. Pp. 417, with illustrations. McGraw-Hill Book Company, Inc., 330 W. 42d St., New York 18; Aldwych House, Aldwych, London, W.C.2, 1949.

This book, with a foreword by David E. Lilienthal, is concerned with electronic circuits for nuclear measuring instruments. The circuits can be used for other purposes such as research in physiology; the book serves as a guide for making successful and practical electronic circuits for amplifiers, counters and timers. Although it is probably too technical for the general practitioner, it is valuable for men engaged in medical research.

QUERIES AND MINOR NOTES

The answers here published have been prepared by competent authorities. They do not, however, represent the opinions of any official bodies unless specifically stated in the reply. Anonymous communications and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted on request.

TREATMENT OF BRUCELLOSIS

To the Editor:—A stock man aged 48 had brucellosis. The type of organism was not determined; the laboratory reported positive results only up to 1:640 for undulant fever. I gave him chloramphenicol in 1 Gm. doses for six days. Fever left at once. The patient is better but still has a positive titer in 1:640 dilution. Is he well? If not, what must I do? How am I to know when he is well?

W. H. Bellinger, M.D., Charleston, Ark.

ANSWER.—In the treatment of the foregoing patient the length of administration of chloramphenicol is less than usually recommended. Therapy should be continued for at least fourteen days. The well-being of the patient is one good criterion for evaluating treatment. Whenever possible, several cultures of blood should be made after completion of treatment. The agglutinin titer may remain elevated for several months after successful therapy. The presence of agglutinins after treatment is not an indication that active disease is present. If the patient feels well, further treatment is not essential. If he has a relapse, a second course of the drug might be given, employing 1 Gm. four times a day for two weeks; or 0.5 Gm. of aureomycin hydrochloride might be given four times a day for two weeks.

SNAKE BITE

To the Editor:—Abercrombie and Fitch have combined snake antivenom for the various snakes found in North America. It is powdered—not diluted or dissolved until used. I wonder how long it is good in the powdered state. What drug firm puts up antivenom? There are also snake bite kits with "powerful suction pumps" to suck out the venom after a bite. Would that measure be enough, used alone—if it were used promptly?

Marks S. Shaine, M.D., Oakland, Calif.

ANSWER.—The preparation referred to is probably antivenin polyvalent or North American anti-snake bite serum made by Wyeth, Inc., Philadelphia. This is a hyperimmune equine serum containing protective substances against rattlesnake, copperhead and moccasin venom. It is desiccated by vacuum dehydration from the frozen state (lyophile process) and, in the original powdered state, is claimed to remain potent for at least five years. The question whether suction alone would be an effective treatment for snake bite if applied promptly cannot be answered categorically. It is generally agreed that wherever possible both antivenin and first aid measures (tourniquet, suction) should be employed and that use of the antivenin should not be allowed to replace the first aid measures just mentioned. There is some difference of opinion regarding the value of incision at the site of the bite.

ARTHRITIS

To the Editor:—A 30 year old white man has a migratory type of arthritis dating from August 1948, when severe urticaria developed from penicillin therapy for nonspecific prostatitis. For some time thereafter he noted soreness and swelling subsequent to any pressure over the joints or long bones. He improved, however, and remained so until one year later, when the discharge recurred. He was given aureomycin, which resulted in a disabling, painful, right hip. Subsequently the pain migrated to the sacroiliac area, the left shoulder and the region of the first lumbar vertebra. At present he has a normal blood picture, aside from a white cell count of 11,650 and a sedimentation rate of 25 mm. (Cutter) in 1 hour. He has been advised by another physician that this is the result of the penicillin and aureomycin therapy.

Paul A. Dressel, M.D., Montrose, Calif.

ANSWER.—From the patient's history it would appear that this initial attack of arthritis was related to the serum-sickness-like disease that followed the use of penicillin. When the nonspecific prostatitis reappeared one year after the penicillin reaction and aureomycin was given, a migrating polyarthritis developed. It would seem that neither the penicillin nor the aureomycin had anything to do with the second bout of arthritis. First, penicillin was not given during the second attack of arthritis and can therefore be eliminated as a cause. Second, it is more likely that the arthritis is associated with the nonspecific urethritis than with the treatment with aureomycin. Hypersensitivity to aureomycin of this type has not been reported.

ANAPHYLACTIC SHOCK FOLLOWING WASP STING

To the Editor:—A man suffered anaphylactic shock within two minutes after being stung by a wasp last summer. The patient nearly died before he could receive intratracheal oxygen and epinephrine in a hospital. He does not recall any other wasp sting since early childhood. Would it be possible to desensitize this man before this summer. Is a preparation available for this purpose, and who makes it? The man carries an antihistaminic drug with him and has been advised to get a physician and epinephrine immediately if another accident should occur.

G. Alan Neufeld, M.D., Ottawa, Ill.

ANSWER.—Desensitization to wasp or bee sting is possible, although it may be a slow and tedious process. The writer has desensitized 2 patients. The material was obtained by procuring a number of wasps or bees, separating and discarding the poison sacs, and then extracting the rest of the bee. In such allergy the susceptible person is sensitive to the bee protein rather than specifically to the venom. The presence of the venom in the extract may interfere with the injections. Several biologic manufacturers offer for sale a dry powder of bee substance (Hollister-Stier Laboratories, 727 Penn Avenue, Wilkinsburg, Pa., and Arlington Chemical Company, Yonkers, N. Y.). If the inquirer does not wish to prepare his own extract, one of these houses may do it for him.

When the finished extract is procured certain precautions are necessary prior to the institution of treatment. The extract should be diluted serially in multiples of ten and scratch tests made on the patient. Treatment should be begun with a dilution about 100 times weaker than the weakest extract reacting on the scratch test. There is always the possibility that the patient might have constitutional reactions from the injections. However, if the usual desensitizing precautions are taken and intravascular injection is carefully avoided reactions need not be severe. Epinephrine should always be ready for use in case of a severe reaction; antihistaminic drugs are not to be relied on for this purpose. It is suggested that in the meanwhile the patient be instructed to carry epinephrine with him ready for injection, preferably in the form of a self-contained ampul and needle unit.

CARE OF BLOOD DONORS

To the Editor:—We are interested in the proper care of blood donors after they have given blood for transfusions. There have been several cases in which donors became seriously ill after blood was taken, and in at least 1 case a death occurred which might or might not be attributed to the giving of blood.

B. C. Woolsey, M.D., Wellsboro, Pa.

ANSWER.—The blood procurement program during the war and the present vastly increased use of blood for therapeutic purposes in civilian medicine have provided ample opportunity to observe what dangers are associated with the act of donating blood. At the completion of the Red Cross program during the war, as many as 13 million pints of blood had been donated, and at present blood continues to be collected for civilian blood transfusions at the rate of millions of pints yearly.

The most disturbing accident occurring after a blood donation is faintness, or actual fainting, and occasionally deep unconsciousness. In this emotional factors play a certain role, because in some cases donors have fainted before they were bled, or the wife or husband fainted when the other marital partner was bled. Aside from the psychic aspect, the precipitating cause of fainting is the sudden reduction in blood volume. The incidence of fainting has been reported as varying between 1 and 6 per cent; some persons are more predisposed to faint than others. Women are somewhat more prone to faint than men, and there is also a greater tendency among younger donors, because of their smaller size and lower blood pressure. To counteract this tendency, some hematologists make a practice of taking smaller amounts of blood from such donors. During the war at the Chinese Blood Bank in New York City the average donation taken from Chinese donors, who have a smaller body size, was only 350 cc. instead of the usual 500 cc.

Probably one of the most important precautions is the proper care of the donor before the donation; the incidence of fainting can be reduced by screening out unsuitable donors by physical

examination to exclude those with a low blood pressure or a low hemoglobin level, or with small body size. In the experience of the Red Cross, it was necessary to reject less than 1 per cent of male donors, but as many as 10 to 15 per cent of female donors had to be rejected. According to the experience of Dr. Lester J. Unger, director of the Blood Bank of the New York University-Bellevue Medical Center, where during the year 1949 more than 145,000 donors presented themselves, and where great care is taken to screen donors, the percentage of rejections was 28 per cent.

A donor who has been without food for a long time or who makes his donation after coming off a night shift is a likely candidate for fainting. After the donation the patient should be kept in a supine position for about ten minutes. The nervous donor should be made to feel at home, and his attention should be distracted from the procedure by conversation about pleasant matters. The bleeding room should be light and airy, and smoking should not be permitted in it or in the resuscitation room. It has been demonstrated that the fainting rate can be reduced in donors from hot sweatshops if they drink a liter of isotonic sodium chloride solution before the bleeding, and certainly on hot days a glassful of water is a beneficial preparatory measure. If fainting or loss of consciousness should occur, it is handled in the usual manner by holding the head low, loosening the clothes and applying fresh air. Occasionally intravenous infusions of saline solution may be required, and some donors may even have to be kept in the hospital overnight. When such a donor has fully recovered, he should be sent home by car or with an escort. More serious than fainting immediately after the donation is the occasional occurrence of syncope after the donor has left the hospital. The donor may fall and lacerate his scalp or even fracture his skull, or if he falls in the street in the midst of traffic or at work in a factory he may become involved in a serious accident.

With proper care, the donation of a pint of blood by a healthy adult is safe. Among the 13 million donations in the experience of the Red Cross during the war, there was only a single fatality in a blood donor center caused by a sudden attack of coronary occlusion, and 10 additional fatal cardiovascular accidents which occurred three to forty-eight hours after the donor left the center. These few severe cardiovascular accidents are certainly no more frequent in number than would be expected among several million persons, no matter what they did before death.

CONTENT OF THE MENSTRUAL DISCHARGE

To the Editor:—What is the physiologic or chemical difference between blood discharged at menstruation and normal blood between menses?

M.D., North Carolina.

ANSWER.—The menstrual discharge is about one-half to three-fourths blood; the remainder is made up of mucus, fragments of uterine mucosa and desquamated vaginal epithelium. Menstrual blood does not contain, according to most workers, fibrinogen, thrombin or anticoagulants. The calcium content has been stated to be normal. It has been observed that the nonprotein nitrogen and amino nitrogen of menstrual blood is higher than that of circulating blood. Numerous workers have demonstrated that menstrual blood is higher in arsenic content than venous blood and contains estrogen in concentrations up to five times that of circulating blood. Menstrual blood is supposed to contain a toxin called menotoxin. O. W. Smith has found that this toxin is apparently a proteolytic enzyme which arises from split-off components of cells in the menstrual discharge. Most workers believe that the blood present in the menstrual discharge represents blood in which clotting has occurred with subsequent lysis of the clot by the proteolytic enzymes found in the menstrual discharge.

DRACUNCULOSIS (GUINEA WORM INFECTION)

To the Editor:—What is the present day concept in the treatment of infection with the guinea worm (Dracunculus medinensis)? Will the worm live indefinitely in the body? Have endemic cases been reported in this country?

M.D., South Carolina.

ANSWER.—The guinea worm, Dracunculus medinensis, has been reported as endemic in this hemisphere in various islands of the Caribbean, the Guianas and Brazil. Ten cases reported from the United States were found to be of foreign origin or were the result of misdiagnosis. However, it has been suggested that man may be infected with Dracunculus insignis, a parasite of the raccoon in this country. The endemicity of the infection in the United States has been reviewed by B. G. Chitwood (*J. A. M. A.* **100**:802 [March 8] 1933). The incubation period of the worm is ten to fourteen months, at the end of which it produces its cutaneous blister and begins to discharge larvae. It may complete its parturition in eleven to thirty days and will then be gradually absorbed or may emerge spontaneously. A number of drugs have been suggested in treatment, and the methods of administration vary. All are of questionable value with the possible exception of local injections of phenothiazine as used by Elliot (*Tr. Roy. Soc. Trop. Med. & Hyg.* **35**:291, 1942). The gradual extraction of the worm by intermittent, gentle traction over a period of days is still used. Also, surgical removal of the worm may be practical if the worm is in a convenient position or if its extent has been determined by injection of the worm with a colloidal silver preparation (collargol*) followed by roentgenograms.

Various factors such as multiple infections, sensitivity reaction, calcification of the worm, joint involvement and secondary bacterial infections complicate treatment. The inquirer is referred to R. P. Strong, "Stitt's Diagnosis, Prevention and Treatment of Tropical Diseases" (ed. 7, Garden City, N. Y., The Blakiston Company, 1944, pp. 1379-1393) for a fairly extensive general summary.

ALKALINITY AND CANCER

To the Editor:—Are there any reports on the p_H of cerebrospinal fluids of patients with precancerous conditions? What is the incidence of alkalosis in cancer? Would an alkaline cerebrospinal fluid (other than may occur in meningitis) necessarily be an indication of alkalosis, or are there any other known causes for such alkaline fluid?

Elias L. Stern, M.D., San Diego, Calif.

ANSWER.—The p_H of the normal cerebrospinal fluid is the same as that of normal blood, namely, 7.35 to 7.40. Since the cerebrospinal fluid is in equilibrium with the blood, acid-base changes in the latter will reflect themselves in the former. Such a change, for example, occurs in diabetic acidosis. In addition to such systemic causes for acid-base changes, purulent meningitides may lead to an acid state of the fluid because of bacterial utilization of dextrose with consequent production of acid.

The idea that cancer is associated with alkalosis recurs in the literature not infrequently. The basis for this idea seems to be studies made about 1906-1910, before the era of precise p_H measurement. A number of more modern studies (Chambers and Kleinschmidt [*J. Biol. Chem.* **55**:257, 1923]; Millet [ibid. **82**:263, 1929]; Bischoff, Long and Hill [ibid. **87**:110, 1930]; and Ehldahl [*Chem. Zentralbl.* 1:1224, 1940]) have shown no significant difference in the blood p_H or other measure of acid-base balance between normal persons and patients with cancer.

On the basis of these data and what is known about the equilibrium between the blood and the cerebrospinal fluid, it appears unlikely that the latter should be alkaline in patients with cancer. Precise and accurate p_H determinations demand the observance of many technical details. Perhaps the most commonly made error is the failure to collect a body fluid under oil and then permitting the fluid to stand for several hours or longer before the p_H is determined. Under such conditions carbon dioxide is lost and the p_H rises.

CHOREA

To the Editor:—What is the newest treatment of Sydenham's chorea? What are the results with pyridoxine, diphenylhydantoin sodium, aminopyrine and intravenously given sodium salicylate? The patient is a boy 11 years of age with an intelligence quotient of 58, admitted to our school in 1947. In June 1949 he showed signs and symptoms of acute chorea, highest temperature 100 F. There is no involvement, or history of diseases of the joints or heart; he has slight leukocytosis and slightly increased sedimentation rate.

Hans Benda, M.D., Wassaic, N. Y.

ANSWER.—The case falls into the borderline group between chorea associated with rheumatic fever and of the nonrheumatic type. The moderate fever and slightly increased sedimentation rate favor a classification in the rheumatic group, which embraces about 65 per cent of all cases of chorea. The importance of a determination of the type lies in the fact that, although rheumatic fever was not present when this patient was examined, subsequent development should be considered as likely.

Pyridoxine hydrochloride (vitamin B_6) or any other factors of the vitamin B complex have not been shown to be of value in treating chorea. Diphenylhydantoin sodium, an anticonvulsant and weak hypnotic, is also valueless, as are the other hydantoin derivatives. Phenylethylhydantoin (nirvanol*) should not be used because of its tendency to cause optic atrophy or agranulocytosis. Aminopyrine, an antipyretic and analgesic, should be used with care, if at all. Fatal granulocytopenia may occur in susceptible persons. Sodium salicylate may be used intravenously, sometimes with advantage, but the oral dose is usually preferred.

Fever therapy is the treatment of choice. The fever may be provoked by the use of hypertherm* apparatus or by intravenous injection of typhoid vaccine. Artificially induced fever, complete bed rest, an individual room and mild sedation are still the best means of treating chorea. It is too early to evaluate the effect of ACTH or cortisone* on chorea.

REACTION TO SMALL AMOUNT OF ALCOHOL

To the Editor:—A 42 year old man is now unable to take a drink of any kind which contains alcohol. There are times when it is embarrassing for him to refuse a drink. The amount of alcohol in a bottle of beer or ale will cause flushing of the face and neck and decided congestion of the conjunctivae and cornea, lasting twenty minutes to one hour. When the reaction has reached a peak after he has taken a small amount of alcoholic drink it is not further increased by additional amounts. The patient is not an alcoholic addict, nor has he ever drunk to excess. The onset of the condition has been gradual, and the duration is about one and a half years. He is happily married and has no financial problems. The family history is noncontributory. The following test was recently performed: At 3 p.m. he was given a capsule containing 50 mg. of diphenhydramine hydrochloride. He then drank 12 ounces (385 cc.) of ale; within fifteen minutes he appeared flushed and felt that all the blood in his body had suddenly rushed to his head. At 3:15 p.m. he was given 50 mg. of diphenhydramine, and thirty minutes later there was no change in his condition. At this time 0.5 cc. of epinephrine was given to him subcutaneously, and within five minutes the reaction had subsided. His heart is normal in size and position. The blood pressure is normal and the urine contains no sugar or albumin and is microscopically normal. Skin reaction to corn and rye were negative. I would appreciate suggestions.

Bernard P. Crozer, M.D., Sharon, Mass.

ANSWER.—Alcohol, of course, causes vasodilatation in everyone in amounts ordinarily imbibed. In the case described the degree of vasodilatation is excessive and the amount required is small. The question of allergy to alcohol or its precursors, rye, corn or malt, can be ruled out, since most authorities now agree that allergy to such a simple chemical substance as alcohol does not exist and that the original protein antigens are no longer present in the whisky. There are three possible explanations in the present case. This man may have a low pharmacologic tolerance to alcohol so that he reacts from a small dose as others would react to a large dose. This is comparable to other pharmacologic situations, such as reaction to quinine or acetylsalicylic acid, for example. It may take 20 or 30 grains (1.29 or 1.34 Gm.) of quinine to cause many persons to experience tinnitus, but an occasional person may have the same effect from 1 grain (0.06 Gm.). In both instances the symptom involved is the ordinary pharmacologic effect of the drug. Another explanation is that the alcohol acts as a stimulus to the release of histamine. In such cases allergy-like effects have been known to occur and have consisted of any of the following: urticaria, asthma, sneezing and nasal congestion or faintness and syncope. The last is due to excessive systemic liberation of histamine. There is also the possibility, which seems remote in this case, that an existing allergy, such as one due to other foods, may be precipitated by the vasodilating effect of the alcohol. A profound drop in the blood pressure after the ingestion of alcohol may indicate the general histamine release already mentioned. In 1 instance it has been possible to show by histamine bioassay that an excessive amount of histamine was present in the blood. An antihistaminic drug may be of great benefit, provided it is given in a fairly large dose and at least an hour before ingestion of alcohol. If the antihistaminic therapy is not effective, then a vasoconstrictor such as ephedrine (25 mg.) about one hour before ingestion of alcohol would be worth a trial.

BLANCHING AND NUMBNESS OF FINGERS

To the Editor:—Please comment on the following history: a man aged 36, apparently in good health, complained of numbness of right third and fourth digits and left fourth digit for one month, followed by complete blanching of identical digits of both hands the following month. Attacks are periodic, occur one to four times weekly, frequently after he washes his hands in cold water or enters his home after exposure outdoors. Blanching persists for one to two minutes, then the skin returns to normal. The patient smokes 40 to 50 cigarets daily and is a moderately heavy drinker of beer. There is no other significant past history other than exposure to extremes of climate while in training or in combat during World War II. The family history is noncontributory.

Vincent I. Bonafede, M.D., Sonyea, N. Y.

ANSWER.—Vasospastic phenomena of digits, associated with blanching and numbness, may occur in a number of different conditions. It is well to rule out organic occlusion of digital arteries, such as occur in young male smokers who suffer from thromboangiitis obliterans. Hypertensive or syphilitic arteriolar sclerosis must be considered. Evidence of the intensity and duration of the exposure to cold in the past should be investigated. A thorough neurologic examination should rule out peripheral neuritis, compression of roots or a cord lesion. Pressure on the roots or divisions of the brachial plexus by cervical ribs, anomalous first ribs, pulmonary lesions, osteoarthritis of the spine or cervical intervertebral disks must be considered. Treatment cannot be determined until the diagnosis is made, but cessation of smoking and drinking is essential in any case because of the vasoconstrictive effect of nicotine and the neuropathy resulting from excessive alcoholic intake.

TUBAL INSUFFLATION AND STERILITY

To the Editor:—A married, 36 year old white woman has no children. The onset of menstruation was at age 14. Her last menstrual period was June 24, 1948. Each previous menstrual period lasted three days in a 28 day cycle. She was pregnant once and miscarried at two or three months. Subsequent to admission, the patient had a tubal insufflation, after which, she did not menstruate. A chest roentgenogram in 1948 and physical examination revealed no signs of disease. She weighs 110 pounds (50 Kg.); blood pressure is 125 systolic and 95 diastolic, respirations 20, pulse rate 80 and temperature 98.6 F. Roentgenograms of the skull and gastrointestinal tract revealed no abnormality. There were no positive neurologic findings. Her basal metabolic rate is 0. The breasts are enlarged but normal in appearance. The uterus is forward and normal in size. The tubes and ovaries are not palpable. The Wassermann reaction is negative, sedimentation rate normal and red and white blood cell count is within normal range. This patient is very much concerned because she does not menstruate. She is nervous and cries. What can be done?

Milton Margolen, M.D., Milwaukee.

ANSWER.—Almost certainly the tubal insufflation did not cause the amenorrhea in this case. While spontaneous menopause at 36 years of age is rare it is possible, particularly if the patient's mother had an early change of life.

In many cases menstruation can be brought about by administration of 12.5 mg. progesterone and 2.5 mg. estrogen in 1 ampul and repetition of this the next day. The bleeding which follows this treatment will not necessarily be repeated every month, so more hypodermic medication of this type may have to be given. Another form of hormone therapy which sometimes helps is the following: 3,000 I.U. of equine gonadotropins intramuscularly daily for five days followed by 1,500 I.U. of chorionic gonadotropins given intramuscularly three times on alternate days. Generally menstruation occurs from eight to twelve days after the last injection. Pregnancy does sometimes follow this therapy. In view of the patient's mental attitude, if this treatment fails to produce regular menstruation, it is not advisable to try different forms of hormone treatment. The patient should receive irradiation therapy to the pituitary, as there is a high incidence of success with this form of treatment both as regards menstruation and pregnancy. However, this treatment must be carried out with great care and by an expert roentgenologist.

PACIFIERS AND THE SUCKING INSTINCT

To the Editor:—What are the objections to the use of a pacifier or "sugar teat" by infants and young children? Is there any reason why such a device should not be used to satisfy the sucking reflex?

M.D., Louisiana.

ANSWER.—The main objection to the use by young children of pacifiers is the fact that they are considered unhygienic and a possible source or portal of entry for introduction of pathogenic bacteria into the body. This also applies as a reason for not using such a device to satisfy the sucking instinct. According to Spock, babies who are not given enough opportunity for sucking at the breast or bottle to satisfy their sucking instinct are more likely to suck their thumbs. He believes that breast-fed babies are less likely to be thumb suckers than are bottle-fed babies, because the former are allowed to suck longer than the latter.

CATHARTICS IN PEDIATRIC PRACTICE

To the Editor:—I understand that modern pediatric practice holds no place for the use of castor oil. Recently I noticed on a drug store bottle the warning not to administer castor oil to any child under the age of 6 years. Is there any well established reason for this warning, other than the usual precaution of not administering any laxative until appendicitis has been ruled out when there is abdominal pain?

Willis P. Baker, M.D., Santa Ana, Calif.

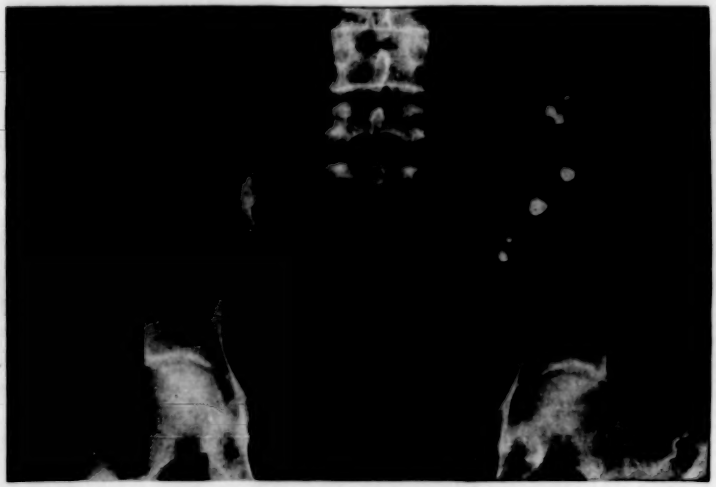
ANSWER.—Most cathartic drugs have fallen into disfavor in pediatric practice. In constipation in infancy a change to, or the addition of, more fermentative carbohydrates may be corrective. The early addition of fruits and fruit juices also acts in a laxative way; in the older child the addition of more and rougher foods to the diet acts to correct constipation. The continued use of laxatives is habit forming.

MILK FOR INFANT FEEDING

To the Editor:—Why is skim milk not used more universally for infants and children over 6 months of age rather than whole milk? Would not skim milk provide all the necessary minerals and protein and would it not allow a better appetite for iron-containing foods?

M.D., Maryland.

ANSWER.—Skim milk probably is not used more universally for children over 6 months of age because it is poor in caloric value compared with whole milk. Whereas whole milk has caloric value of 20 calories per ounce, skim milk has only 13 calories to the ounce. Skim milk would provide all the minerals and proteins that whole milk would. The taste of skim milk would probably not appeal as much as that of whole milk to many children.



In the above roentgenogram the retained contrast medium clearly outlines the sharply demarked diverticula along the course of the transverse colon.

Constipation in Diverticulosis—Occurring with increasing frequency in each consecutive decade of life, diverticulosis is commonly associated with constipation.

In addition to a smooth diet, Metamucil may be employed to provide a bland, water-retaining bulk which softens the fecal content and helps relieve constipation without straining or irritation.

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ASSISTANTS WANTED

WANTED—ASSISTANT IN GENERAL PRACTICE; salary $500 per month; Pennsylvania license; recent graduate preferred. Box 9010 B, % AMA.

WANTED — ASSISTANT; YOUNG QUALIFIED pediatrician; to become associate in busy pediatric practice; in St. Louis, Missouri; excellent opportunity for permanent location; salary open; submit recent photograph. Box 9084 B, % AMA.

ASSISTANT WANTED—NORTH DAKOTA COUNty seat; new hospital; considerable surgery; ($700); partnership later; photograph, full details 1st letter. Box 9202 B, % AMA.

PHYSICIANS WANTED

WANTED—PHYSICIAN; TO TAKE OVER PRACTICE and 4 room office; centrally heated, fully equipped; equipment rather old, but in perfect condition; I am retiring due to ill health; town has 10,000 population; fine hospital which is recognized by American College of Surgeons; this is a farming community and mining town also. Address: Dr. Morris H. C. Johnson, FACS, Vincennes, Indiana. C

WANTED — SUPERINTENDENT AND MEDICAL director; 115 bed county tuberculosis sanatorium; northern Wisconsin; open September 1st; active surgical program, auxiliary services established; adequate training, Wisconsin licensure necessary; salary open; full facility maintenance available. Address: Hugh C. McDonald, Chairman, Board of Trustees, Middle River Sanatorium, Hawthorne, Wisconsin. C

YOUNG PHYSICIAN—DIPLOMATE AMERICAN Board Internal Medicine; to assume charge newly organized medical department; in large state hospital + for mental diseases; salary $5000-$5750 plus maintenance for self and family; opening also for recent graduate as assistant to above; salary $3000-$3750 plus maintenance for self and family. Box 9053 C, % AMA.

PATHOLOGIST—FOR APPOINTMENT AS CHIEF OF department; 200 bed general hospital *; in city of 30,000 not far from New York City; active educational program in conjunction with medical school; young man eligible for Boards acceptable; fine opportunity; best equipment and facilities. Box 9042 C, % AMA.

OPPORTUNITY — TO ESTABLISH LUCRATIVE practice; men and women, Dermatology; 201 bed, approved hospital *; attractive community; Board certified or eligible. Write all information: Charles J. Gelhaus, Superintendent, Washington County Hospital, Hagerstown, Maryland. C

WANTED—ROENTGENOLOGIST; FOR MENTAL HOSpital; attractive salary and partial maintenance; 2 excellent colleges in immediate vicinity; submit full information, 3 references, small photograph in 1st letter. Address: Superintendent, Box 325, Milledgeville, Georgia. C

WANTED — GENERAL PRACTITIONER; TO JOIN 2 in general practice; salary to start, percentage basis later. Box 9045 C, % AMA.

OZARK OPPORTUNITY—GENERAL PRACTITIONER; fully equipped office available; eligible for certification internist preferred; large town; hospital connections assured. Box 9061 C, % AMA.

WANTED—PATHOLOGIST; FOR 250 BED GENERAL hospital *; immediately; in South; guaranteed salary and commission or straight commission basis. Box 9043 C, % AMA.

ORTHOPEDIST — BOARD CERTIFIED OR ELIgible; lucrative opportunity to establish practice; in an attractive community; approved 201 bed hospital * without this specialty; location East. Box 9041 C, % AMA.

WANTED—RECENT GRADUATE; GENERAL PRACtice; as assistant-partner or to buy large practice; Minnesota; 25 miles from Twin Cities. Box 9050 C, % AMA.

WANTED—A PROCTOLOGIST; FOR THE JACKSON Clinic, Madison, Wisconsin; active department; large service; Board member preferred. C

ESTABLISHED 15 YEARS—MODERN DOCTORS OFfice; unusual lucrative general practice; community needs physician; large drawing territory; $15,000 yearly assured. Box 9048 C, % AMA.

(Continued on page 42)

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Tonics and Sedatives

From the *West End News*, Virgin Islands:

NEWS AT A GLANCE

Back In The Running

Jungle Casino has been renovated, with water toilet added and is back in the running.

—F. W. Blatchford

t & s

Seen by Joseph Selman:

DOCTOR KNOWS WOMEN, EXPLAINS LUNG SPOTS

Atlanta, May 29.—(AP)—A number of women, obviously in good shape, turned out to have lung spots during a city-wide health survey here.

Puzzled doctors studied and studied the X-rays, baffled by the fact that the spots showed on both lungs and in identical positions.

Finally a doctor who had encountered such shadows for the first time in 1946 enlightened his comrades. "Falsies," he explained.

t & s

From Max Schlachter:

MEMBERS OF THE ALAMEDA COUNTY MEDICAL ASSOCIATION

are invited to a

BUFFET DINNER AND SCIENTIFIC PROGRAM

as guests of

CAPT. S. S. COOK AND THE STAFF

U. S. Navel Hospital—Oak Knoll

Monday, April 17

SWeetwood 8-5400, Ext. 275

6:30 p. m.—Buffet dinner

8:15 p. m.—Scientific Program

SPECIALIZATION IN THE NAVY

t & s

Seen in the Los Angeles *Times*:

'SELF-INFLICTED OPERATION RESULTS IN MAN'S DEATH

An attempt to perform a hernia operation on himself with a safety razor blade resulted yesterday in the death of . . ., 80, retired letter carrier, Santa Monica police reported. . . ., a son, told Detective Inspector . . . that upon returning home, . . . for lunch, his mother, . . . informed him that his father had locked himself in the bathroom.

When the elder . . . admitted them it was found he had made an incision in the groin but had been unable to complete the operation. He had previously had a hernia operation on the other side of the body, the son said.

The father had been advised by doctors that because of his age and a heart condition, no operation should be performed on him until next August. But he was obsessed with the idea that it should be done at once, according to the family.

Death is reported to have resulted from shock "due to self-inflicted injury."

—R. Barondes

(Continued on page 40)

For term and premature infants

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SIMILAC

whenever breast milk is not available

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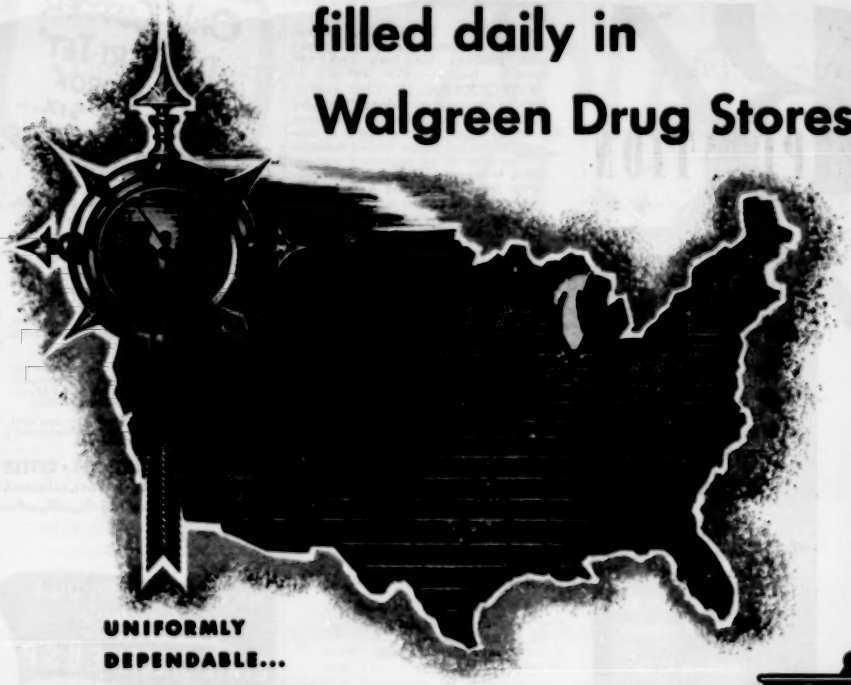

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COUNCIL ACCEPTED
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Solution Nikethamide 25% W V
2 cc. and 5 cc. ampuloids

Tablets Sulfadiazine 0.5 Gm.

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25 mg. 50 mg. 100 mg.

Tablets Phenobarbital
16 mg. 32 mg. 0.1 Gm.

R
BUFF[illegible]ON'S
PHARMAC[illegible] CHEMISTS

(Tonics and Sedatives Continued)

Personals from the *Saturday Review of Literature:*

FEMME, fettered in federal employment, seeks succor via masculine mail. Box .....

COLLEGE TEACHER, liberal, invites correspondence from femmes with fondness for both toys and theories. Box .....

CONCURRING IN THE OPINION of the aquatic quidnunc, that now is the propitious time for discussion, if not in his alliterative choice of subjects, whimsical fellow invites feminine collaboration in an epistolary venture, which is hoped may furnish an opportunity for the undraped little Archer to improve his record in target recognition and marksmanship. Box .....

WILL SPIRITED, inconoclastic woman, aelurophile, write young rustic? Box .....

t & s

Dear Editor:

On cross-examining a medical expert who had been introduced to controvert testimony of a psychiatrist, I asked him if he was familiar with the field of psychiatry. He said he was. I asked him if he had read literature in connection with it. He said he had read several articles. I asked him if he was familiar with the procedures of treatment in psychiatric cases. His reply was, "I know the treatments but I am not familiar with the dosages."

—Emilie N. Wanderer,
Attorney at Law

t & s

Seen by H. D. Murdock in the Brodhead, Wis., *Independent-Register:*

CRI MEDICOS

One says to gargle sixteen times
With dilute listerine;
Another says the only cure
Is antihistamine.

One says to sleep ten hours a day
And stay out of the breezes,
Another says hot lemonade
Will stop the sniffs and sneezes.

Each remedy's infallible;
So it must be my curse—
For though I've done the things they said
My cold's a whole lot worse!

Frances Burt

t & s

As prescribed by a physician about 1860. Submitted by Dr. Robert W. Rogers, Plainfield, N. J.

GENERAL DIRECTIONS FOR EACH PATIENT

Strike you with the Buffine and flat hand every evening and morning, in undress, over the shoulders, spine, and whole back from top to bottom, and also over the hips. Then strike over the chest, sides, stomach, and bowels. This will call the blood, and with it the virtue of the medicine and all the healing power connected with the body to all those weak internal spots over which you strike, aid in equalizing the circulating forces, and thus convey health, ease, and vigor to the entire system.

(Continued on page 42)

Only CUTTER DIP-PERT-TET* ALHYDROX* GIVES ALL SIX...

1. Active immunization against DIPHTHERIA.
2. Active immunization against PERTUSSIS.
3. Active immunization against TETANUS.
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*DIP-PERT-TET ALHYDROX—*Diphtheria and Tetanus toxoids and Pertussis vaccine combined Aluminum Hydroxide Adsorbed.

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ETHYL CHLORIDE U.S.P.

Recent researches in Ethyl Chloride have discovered a new use for a world-famous product in the *control of pain*, by proper spraying with GEBAUER'S ETHYL CHLORIDE from the "dispenseal" bottle, in the adjunctive treatment of *Stiff Neck, Lumbago, Sciatica* and *Sprains*, pain can be stopped or greatly alleviated—often with very outstanding and gratifying results to both the physician and the patient.

The mechanism of action does not depend for its effect upon the central nervous system, nor upon refrigeration. *In fact, frosting is to be avoided.* Application of Ethyl Chloride apparently breaks up vicious cycles of muscle spasm and pain, resulting from trauma, chronic muscular strain, chilling, or visceral disease by some pharmacologic process as yet not fully determined. These cycles reside in certain areas of the muscle or muscles interpreted by the patient as tender points, which may be called trigger areas. The spraying of the skin overlying these areas releases the self-sustaining painful spasm. More complete details and application procedure may be obtained from your surgical supply dealer or by writing to Dept. A, The Gebauer Chemical Company.

THE GEBAUER CHEMICAL COMPANY

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XIV. FOLIC ACID IN RELATION TO GASTROENTERIC FUNCTION

Experimental work with animals and clinical studies of patients with sprue have shown that folic acid bears a close relation to normal functioning of the gastrointestinal tract. Sprue patients treated with folic acid experience relief of glossitis, regeneration of lingual papillae, cessation of diarrhea, more normal glucose tolerance curves, improved vitamin A absorption, increased prothrombin concentration and higher plasma tocopherol levels. These findings tend to substantiate the hypothesis that folic acid exerts a favorable influence on the primary gastrointestinal disorder in sprue, as well as in other anemias accompanied by diarrhea, and facilitates correction of many secondary nutritional deficiencies.

FOLVITE* Folic Acid Lederle

Elixir: Bottles of 4 fluid ounces. *Tablets:* Tubes of 25, and bottles of 100 and 1000, 5 mg. each tablet.

FOLVITE Sodium Folate Solution Lederle

12 and 100 ampuls of 1 cc., 15 mg. per cc.

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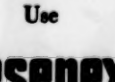

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Undecylenic Acid	**5%**
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Undecylenic Acid	**2%**
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PD-22

(Tonics and Sedatives Continued)

Hence I contend, that a radical care of nearly all chronic or long-standing diseases is impossible without striking. If it be said that persons have recovered by walking, riding, or by sawing and chopping wood, yet this only proves the philosophy of my system true, because these are analogous to so many moderate blows or jars upon the human system. The principle I advocate is perfectly adapted to a particular local weakness and pain, because the blows and jars more or less gently with the Bufftine and flat hand are exactly graduated; according to the nature of the local difficulty, and which riding, walking and occasional labor can not reach nor remove, any more than cupping, blistering and other more cruel counter irritants as they are termed. Hence if you hope for a cure, or to receive any benefit from the medicines prescribed, you must strike.

Wash you all over (except the head) every Sunday and Wednesday morning, at least, in tepid rain or river water, and rub you briskly with a coarse towel. This will keep the pores open. Wash your feet often at bedtime, in tepid water, rub them dry, and see-saw the bottoms with a coarse towel. This will, at last, make them constantly warm. If your head be hot; or in pain, bathe it all over in the hottest water you can bear, and also the neck, and the pain will cease, and the head, by reaction, will become calm and cool. Follow these directions, or else do not take the following prescriptions.

I desire it to be distinctly understood, that the striking above recommended is absolutely and positively indispensable. It must be attended to, and that most faithfully, or no cure of sore and lame spots, or spinal weakness, need be expected.

NOTE: Pure soft water, or else rain water, is in all cases to be used, whether ordered to be mixed with medicines, or to extract the strength from roots, barks, and herbs, by boiling. Pure rain water is best.

Restorative Bitters

No. 1 Receipt	Take Solomons seal	1 oz
	Spikenard root	1 oz
	Cumfrey root	1 oz
Druggist will bruise fine Mix	Columbo root	½ oz
	Gentian root	½ oz
	Carmamile flowers	½ oz

Put this mixture in a jug and add to it 1 pint of boiling hot water. Let it soak 30 minutes and then add 2 quarts of Madeira wine. Cork tight and let it stand five days. Shake it every day then strain out the drugs and bottle the Bitters again.

DOSE—Half a wine glassful three times a day 30 to 60 minutes before meals. Take the whole up. They will strengthen your stomach and chest.

While taking the Bitters you will take one pill or two every night. Take enough to move your bowels once every morning. Before you begin the Bitters take a dose of 4 pills at bed time. They are mild and strengthening and cleansing.

They are my anti bilious pills. You will get a box or the mass at Vredenburghs.

Be sure to wash and strike you as directed in print.

(Continued from page 36)

WANTED—ASSISTANT PHYSICIAN; $100-$500 PER month; maintenance; psychopathic training not necessary. Superintendent, Montana State Hospital, Warm Springs, Montana. C

WANTED—STAFF PHYSICIAN; TUBERCULOSIS hospital 6-; Michigan; salary open; must be a graduate of an approved American medical school; complete family maintenance and living quarters. Box 9712 C, % AMA.

NEW—SUPERB CONDENSATION OF ALL MEDICAL subjects; Physicians' Encyclopedia; 450 pages; beautifully clothbound; $7.50; 5 day trial. Bibliion Press, 257 South Spring St., Los Angeles, California. C

GOLDEN OPPORTUNITY — OPEN SEPTEMBER 1, 1950; for physician and surgeon; in Red River Valley; 15 bed general hospital; rated in American Hospital Directory; latest equipment, including new Picker Century X-ray and new Scanlon-Morris autoclave and sterilizer; doctor's office and laboratory in hospital. Call or write: W. A. Gooderum, Sharon, North Dakota. C

CALIFORNIA OFFERS—OPPORTUNITY TO IN-terest a public health physician; applications are now being accepted for new publicly salaried office, State Personnel Board; salary $7720-$9384 annually; will establish physical job standards and direct visiting nurse program; required, California license or license in any other state in last 10 years and minimum of 1 year's surgical training. Write for details today! Recruitment Section, State Personnel Board, Sacramento, California. C

WANTED—GENERAL PRACTITIONER; FOR GOOD small town near Colorado Springs, Colo.; nice office and living quarters available. Contact: Secretary, Lions Club, Calhan, Colorado. C

WANTED—ANESTHESIOLOGIST; LICENSED IN NY state; diplomate or eligible for American Board; for 75 bed general hospital; salary or fee basis; $9000 per annum assured. Box 9829 C, % AMA.

SURGEON—REQUIRES ASSOCIATE IN GENERAL practice; knowledge of OB-GYN or specialist, desirable; southeastern Iowa city of 30,000; salary $7500 with lucrative partnership available after year. Box 9835 C, % AMA.

WANTED—ANESTHESIOLOGIST; ELIGIBILITY FOR Boards required; to join established group of anesthesiologists, doing private anesthesia; Mid-West. Box 9826 C, % AMA.

WANTED — INTERNIST; WITH KNOWLEDGE OF cardiology and electrocardiography; to become associated with surgeon in Florida; town 15,000. Box 9821 C, % AMA.

WANTED — ASSISTANT DIRECTOR; LARGE MID-West tuberculosis clinic; graduate grade A medical school; at least 1 year experience in chest diseases and X-ray interpretations. Box 9820 C, % AMA.

WANTED—YOUNG QUALIFIED SURGEON; TO enter partnership with general practitioner doing surgery; town 5,000; drawing area 10,000; 50 bed hospital nearing completion. Write: Dr. Jerome Brodell, Perryville, Missouri. C

WANTED—HOUSE PHYSICIAN; FOR 75 BED GEN-eral hospital; class A graduate; eligible for New Jersey license; personal interview desirable; good salary. Isabelle Tomlin Memorial Hospital, Cape May Court House, New Jersey. C

WANTED—SENIOR PSYCHIATRISTS, $5232; RESI-dent psychiatrist, $3656. For information apply: R. G. Wearne, MD, Wassaic State School, Wassaic, New York. C

WANTED—PSYCHIATRIST; TO ORGANIZE CLINIC and assist in resident training program; starting salary $7500 and new furnished house; fund available at nominal cost if desired. Write: W. C. Stringer, MD, Superintendent, 1200 West Cedar St., Cherokee, Iowa. C

WANTED — PHYSICIAN AND SURGEON; FOR model community; population 300; 220 homes; possibility of retainer with large manufacturing concern; access to hospital facilities in Rawlins, 6 miles; modern home and office available; good schools; hunting, fishing and visitor sports. John C. Rea, Sinclair, Wyoming. C

YOUNG AMBITIOUS SURGEON AND INTERNIST OR general practitioner; to associate with practitioner and pediatrician; in large practice in large Mid-West city; salary and percentage. Box 9830 C, % AMA.

WANTED—FULL TIME ASSISTANT MEDICAL EX-aminer; southeastern railroad. Box 9810 C, % AMA.

GENERAL PRACTITIONER — FOR PERMANENT association with general practicing physician; hospital in Detroit area; salary $6000 1st year with subsequent rapid advances and percentage; prefer board graduate completing internship or residency. Box 9781 C, % AMA.

PHYSICIAN—YOUNG; MARRIED; STAFF APPROVED 100 bed general hospital; salary starts either $5400 or $6400 depending on qualifications, with automatic increases to top of $7400; based on 40 hour week; month paid vacation yearly; paid sick leave; disability compensation; retirement system; attractive completely furnished 5 room house, $35 month including all utilities. Box 139, Lawton, Oklahoma. C

HEALTH DIRECTORS—THERE ARE A FEW POSI-tions vacant in Kentucky for county health unit directors; salary ranges from $3,100-$7,200 per annum plus travel allowance of 7c per mile. For further information contact: Bruce Underwood, MD, State Health Commissioner, Kentucky State Department of Health, 620 South 3rd Street, Louisville 2, Kentucky. C

WANTED — FOR PERMANENT ASSOCIATION; physician completing Army; internal medicine with special attention allergy; modern home; Indiana license or reciprocity; salary open; photo and personal information 1st letter. Box 9803 C, % AMA.

WANTED — PHYSICIAN; GENERAL PRACTICE, town of 5000 near Pittsburgh, Penna; excellent opportunity; only 1 other physician; good open hospitals; near schools and churches; home furnished or unfurnished and practice with X-ray for sale; leaving state to specialize; will introduce. Box 9800 C, % AMA.

(Continued on page 44)

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Take a puff—DON'T INHALE. Just s-l-o-w-l-y let the smoke come through your nose. Easy, isn't it? AND NOW...

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(Continued from page 42)

DOCTOR WANTED IMMEDIATELY—FOR GENERAL practice; in town and community of 2500; office furnished; city of 30,000 with large medical center 30 miles away. Reply: Smiths Drug Store, Williston, South Carolina. C

WANTED—A BOARD QUALIFIED DERMATOLOGIST for permanent association with a group practice; in prosperous middle western town; send full particulars. Box 9790 C, % AMA.

WANTED—GENERAL PRACTITIONER; WITH SOME surgical residency; grade A medical school graduate with some experience; office and living quarters available; new 26 bed community hospital; serving area 10,000; gross $25,000; 1 doctor in field. Box 466, Chamberlain, South Dakota. C

WANTED — INTERNIST AND PEDIATRICIAN; both must be qualified for the American Board; partnership with well established clinic group; Yuba, Oklahoma. Box 9780 C, % AMA.

GENERAL PRACTITIONER WANTED — CONNECTICUT rural community; 30 miles, 4 large cities; to associate with overworked individual; excellent opportunity; 8 miles from approved hospital. Write: Dr. Valentine, Abington, Connecticut. C

WANTED — QUALIFIED PSYCHIATRIST; NEW York license; Board certified; charge private mental hospital; near New York City; graduate class A American medical school; age 35-45; $10,000 1/2 first year; future financial interest possible. Box 9775 C, % AMA.

WANTED—PSYCHIATRIST; WITH STATE HOSPITAL experience; to act as clinical director at Utah State Hospital; must have certificate of American Board of Psychiatry or be eligible for same; salary up to $7500 per year plus dwelling; also 1 assistant physician; salary $500-$650 per month depending upon qualifications; must become licensed in state of Utah. Inquire: Superintendent of Utah State Hospital, Provo, Utah. C

WANTED—RESIDENT PHYSICIAN; IN PRIVATE neuropsychiatric clinic and hospital; in large southwestern city; psychiatric experience desirable but not essential; salary open; enclose references with 1st letter. Box 9756 C, % AMA.

WANTED — PHYSICIAN; QUALIFIED SURGERY; fine opportunity; in North Dakota county seat town; new 27 bed hospital planned to open in fall; office space available in hospital. Tessner Herndon, Secretary, Griggs County Hospital Association, Cooperstown, North Dakota. C

WANTED — RESIDENT PSYCHIATRIST; MENTAL sanitarium; close New York City; experienced electroshock and insulin; under 40; $5000-$7000 start; licensed, eligible, NYS; graduate American schools. Box 9776 C, % AMA.

ARE YOU INTERESTED IN A POSITION IN ONE OF our county or district health departments? salary $5600-$7200 with $70 a month travel allowance; public health scholarships available with liberal stipends; men and women physicians eligible. Pelix Z. Underwood, M.D., Mississippi State Board of Health, Jackson, Mississippi. C

OPPORTUNITY IN CALIFORNIA—PHYSICIANS interested in psychiatry; $650 and $684 per month for new graduates and those with 1-10 years or 2-5 years practice; career opportunities throughout California; 2 weeks vacation, sick leave, liberal retirement; requires California license or licensed by examination within 10 years in any other state; write for descriptive brochure. State Personnel Board, Dept. B, 1015 L Street, Sacramento, California. C

WANTED—YOUNG MALE PHYSICIAN; TO STUDY anesthesia with a group of 3 trained anesthesiologists on a preceptor basis. Box 9767 C, % AMA.

WANTED—YOUNG PEDIATRICIAN; BOARD QUALIfications desired; to associate with 2 certified pediatricians in private practice; in Denver, Colorado; early partnership. Box 9761 C, % AMA.

CALIFORNIA OPPORTUNITY — PSYCHIATRISTS and clinical directors; $650 and $764 monthly; Board men or eligibles; with experience; 2 years qualified in supervising new program; 3 weeks vacation, liberal retirement; requires California license or licensed by examination within 10 years in any other state; write today for descriptive brochure. State Personnel Board, Dept. B, 1015 L Street, Sacramento, California. C

RESIDENT MEDICAL DIRECTOR—PSYCHIATRIST; with state license Ohio or eligible preferred; private 100 bed psychiatric hospital + ; approved residency training; organized visiting staff; new residence for family; full maintenance self and wife; open September 1st. Box 9754 C, % AMA.

WANTED — YOUNG PHYSICIAN; TO ASSOCIATE with 2 certified psychiatrists; in private practice and sanitarium and medical school affiliations; in Mid-West; prefer one who has finished residency with possibility of future partnership. Box 9763 C, % AMA.

THREE BUFFALO, NY DOCTORS WHO DO NOT desire pediatric work, want 3 recent graduate in pediatrics; in rent adjoining offices and take over their pediatric work; 3 hospital connections covered; state con, relations affiliations and educational background and photograph; references you care to used. Box 9711 C, % AMA.

WANTED — STAFF PHYSICIAN; APPOINTMENT starting July 1, 1950; 200 bed approved tuberculosis hospital + ; affiliated with medical school of Western Reserve University; previous experience in tuberculosis desirable; salary up to $7500 depending on experience; 3 bedroom house available; nominal charge for maintenance. Sunny Acres Hospital, Cleveland 22, Ohio. C

WANTED—ASSISTANT PHYSICIAN; SALARY RANGE $4680-$6580; residents in psychiatry, salary range $2920-$3561; large eastern state mental hospital + ; approved; active teaching program; training for American Board. Box 9434 C, % AMA.

WANTED — YOUNG OTOLARYNGOLOGIST; TO BE come associated with diplomate, American Board of Otolaryngology, on faculty university medical school; diplomate preferred; will consider otolaryngologist working toward certification; university medical center, Middle West, 500. Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED — PSYCHIATRIST; TO CONDUCT TWO year postgraduate course in psychosomatic and psychoneurotic medicine; program conducted in larger towns throughout state; would spend 10 weeks in each; $12,000, traveling expenses. 863, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

THE ALLEN AGENCY OF DETROIT—PHYSIcians and all other personnel for the medical and related fields; no registration fee. 912 Kales Bldg., Detroit 26, Michigan. C

WANTED — ASSISTANT, BY INTERNIST, DIPLOmate American Board, FACP and professor of medicine, university medical school; will consider one who has recently completed training or preferably with year or 2 residency in medicine. 861, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED — PATHOLOGIST; DIPLOMATE OR ELIgible for Board; to direct laboratory, fairly large general hospital; large city of Southwest, around $15,000. 865, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED—GENERAL PRACTITIONER; WITH FORmal training in either obstetrics or surgery; to become associated with surgeon and internist, both diplomates, and general practitioner; college town, 150,000; northern state. 866, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

MEDICAL DIRECTOR — TUBERCULOSIS CONTROL division; read chest films, explain findings to patients; mobile and stationary units; near large mid-west metropolis; minimum salary $7500. D296. Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED—ASSISTANT MEDICAL DIRECTOR, ONE of the countries leading insurance companies; relatively young man interested in a career in insurance medicine preferred; East. 867, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED—YOUNG PHYSICIANS; FOR INDUSTRY, hospitals, radiology, pathology, student health, etc. Brown's Medical Bureau, 7 East 42nd Street, New York, New York. C

GROUP CLINIC—LONG ESTABLISHED IN SOUTHern city of 200,000 seeks physicist; should be diplomate, qualified to head department; new clinic building; department completely new and modernly equipped; salary or percentage. 868, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

SURGEON — FOR WOMENS COLLEGE; MALE OR female; excellently equipped, well staffed clinic; very attractive university town; Central; to $6000 for 9 months; D333. Woodward Medical Bureau, 185 North Wabash, Chicago. C

CALIFORNIA MEDICAL BUREAU AGENCIES; for physicians and other medical and scientific personnel; write for application blank; registration free. 24 S. Los Robles Ave., Pasadena 1, California. C

WANTED—UROLOGIST; TO BECOME ASSOCIATED with 20 man clinic; diplomate or American Board eligibility required; should be particularly well trained in transvesical type of resection; university city of 500,000; Southwest. 810, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

DIRECTOR OF STUDENT HEALTH — STATE SUPported university; 8000 students; 65 bed short term and general hospital; pleasant college town; central industrial town; 5000; $10,000; D136. Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED—RADIOLOGIST; TO BECOME ASSOCIATED with 3 certified radiologists engaged in private practice of radiology and directing X-ray departments in several hospitals; college town of 125,000. Middle West. 811, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

INDUSTRIAL PHYSICIAN — YOUNG; FULL TIME. New Jersey license; $6000-$8500. New York Medical Exchange, 440 Fifth Avenue, 42 Street, New York, New York. Patricia Edgerly, Director. No registration fee. C

WANTED — PEDIATRICIAN; DIPLOMATE OR ELIgible; to take charge of department, 12 man group, long established in Texas; $10,000 1st year, percentage, eventual partnership. 813, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

RADIOLOGIST—DIRECTOR, X-RAY DEPARTMENT; 250 bed, non-profit, teaching hospital; exceptionally well equipped; immediate expansion program; eastern college town; salary and percentage arrangement; D122. Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED — DERMATOLOGIST; TO BECOME ASSOciated with dermatologist, diplomate American Board, well established in large metropolis; salary or percentage, eventual partnership; woman eligible. 815, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED—TOXICOLOGIST; TO SERVE AS CHIEF, industrial health research section, large pharmaceutical company; physician with Ph.D. in pharmacology preferred; should be qualified to direct basic clinical physiological research in industrial toxicology and industrial health program. 811, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

GENERAL PRACTITIONER—WELL QUALIFIED; wanted by mining company; in western state; salary $1000 monthly plus housing; immediate opening. Pacific Coast Medical Bureau, Agency, 1402-1412 Central Tower, San Francisco 3, California. C

PEDIATRICIAN—DIPLOMATE OR ELIGIBLE; SUPErior 10 man group; new clinic hospital; excellent laboratory, staff; southwest county seat; $10,000 1st year; percentage thereafter; D163. Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED — INTERNIST; TO BECOME ASSOCIATED with fellow American College of Physicians, long established in college town of 100,000; percentage arrangement with minimum guarantee increasing each year, full partnership within 5 years. 816, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED — PSYCHIATRIST; OF EXCEPTIONALLY high calibre and ability; should be interested in neurology; great opportunity offering income commensurate with training; California. 818, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

(Continued on next page)

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Whether for prompt relief of pain or for continuous control of acidity, both speed of action and prolonged effectiveness are important.

The antacid action of Alzinox develops rapidly and continues long.

A true buffer, Alzinox is acid-neutralizing but not alkalinizing. With glycine incorporated within its chemical structure, high acid-buffering capacity is maintained, yet the aluminum content is 40% less than that of dried aluminum hydroxide on a weight for weight basis.

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FACTS ABOUT VAGINAL TAMPONS

Clinical studies indicate cotton vaginal tampons like Meds meet the catamenial requirements of the normal menstruating woman. This careful research shows that when vaginal tampons are used:

1. **Normal tissue remains healthy with their use.** [3, 5, 7, 4]
2. **They do not cause cramps.** [5]
3. **They do not back up flow into the peritoneal cavity.** [2, 3, 4, 5, 7]
4. **Proper sizes do not alter normal anatomic virginity.** [1]
5. **They help avoid contamination from the anus.** [7, 1]
6. **They do not affect the bacteriologic flora or pH.** [5]
7. **They help avoid erotic stimulation.** [1]

IN A RECENT NATIONAL SURVEY made by the Johnson & Johnson Research Foundation among 884 gynecologists and obstetricians, 5 out of 6 doctors reported tampons acceptable for normal women. The use of vaginal tampons is contraindicated in hypermenorrhea, mycotic vulvovaginitis and trichomoniasis, after spontaneous abortion and early in the puerperium.

On the basis of authoritative clinical evidence you may safely recommend **MEDS** [2] to all normal women for greater comfort and peace of mind during menstruation.

1. J.A.M.A. 129:490, 1945
2. Am. J. Obs. & Gyn., 48:510, 1944
3. Am. J. Obs. & Gyn., 46:259, 1943
4. West J. Surg., Obs. & Gyn., 51:150, 1943
5. Med. Rec., 155:316, 1942
6. Med. Rec., Ann., 35:851, 1941
7. Clin. Med. & Surg., 46:327, 1939

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(Continued from preceding page)

MEDICAL DIRECTOR—FULL TIME; INDUSTRIAL plant; Georgia; salary open. New York Medical Exchange, 149 Fifth Avenue, 12 Street, New York, New York. Patricia Edgerly, Director. No registration fee. C

WANTED—MEDICAL DIRECTOR; HOSPITAL AND medical department of oil company; substantial salary; other considerations, including 4 room residence; small town, Texas. 817, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

OPHTHALMOLOGIST—EXCEPTIONALLY QUALIFIED 7 man group; all diplomates or eligible; own modern building and equipment; northern state capital; $10,000 plus large percentage; D217, Woodward Medical Bureau, 185 North Wabash, Chicago. C

PATHOLOGIST—BOARD ELIGIBLE OR CERTIFIED; for association with diplomate that specialty; financial arrangements open; north of San Francisco. Pacific Coast Medical Bureau, Agency, 1499-1512 Central Tower, San Francisco 3, California. C

WANTED—TUBERCULOSIS PHYSICIAN; TO SERVE as medical director, new sanatorium, approximately 100 beds; $7,000, complete maintenance including new residence; Southeast, 819, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

ORTHOPEDIC SURGEON—DIPLOMATE DESIRES associate for active private practice; splendid opportunity leading to Board eligibility; partnership after 1 year; southeastern university city; D180, Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED—ANESTHESIOLOGIST; DIPLOMATE OR eligible; to direct department, fairly large general hospital; percentage contract; California, 820, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

RESIDENT PHYSICIAN—NEW YORK LICENSE PREferred; tuberculosis sanitarium; Long Island; $2000 and maintenance. New York Medical Exchange, 149 Fifth Avenue, 12 Street, New York, New York. Patricia Edgerly, Director. No registration fee. C

WANTED — MEDICAL DIRECTOR; YOUNG MAN with 2 or 3 years industrial training or experience in private practice preferred. Chicago plant of nationally known company; around 1000 employees. 821, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

NEUROPSYCHIATRIST — MUST HAVE ABILITY, good personality, energy and desire to advance; excellent midwest university city 125,000; to $12,000 for well qualified doctor; D113, Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED — OPHTHALMOLOGIST; DIPLOMATE OR eligible; to head department of ophthalmology, 15 man clinic operating own hospital of fairly large size; residential town located short distance from university medical center; East, 822, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

GENERAL PRACTITIONER—EMPHASIS ON ORTHOpedics; well regarded 3 man group; own building and 20 bed hospital; beautiful West Coast town; to $6500; D247, Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED—ASSISTANT; BUSY GENERAL PRACTICE, predominantly surgical, some industrial work; preferably young man well trained in general surgery; opportunity of eventually limiting practice to surgery; small town, California, 828, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

INTERNIST — CERTIFIED OR ELIGIBLE; ESTABlished 17 man group, all diplomates or eligible; northwestern university area; college town; to $12,000 for well qualified doctor; D121, Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED—PATHOLOGIST; DIPLOMATE TO DIRECT laboratories, 450 bed general voluntary hospital; department excellently equipped; staff include chemist, bacteriology, 10 technicians; eastern city within 2 hours ride from New York City; 821, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

OTOLARYNGOLOGIST—DIPLOMATE OR ELIGIBLE; ability to do fenestrations, laryngeal surgery and endoscopies; outstanding 11 man group; desirable West Coast empire; near 20,000; D257, Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED — PATHOLOGIST; TO DIRECT DEPARTment, general hospital, 150 beds, currently under construction; department will serve 7 outlying hospitals; duties include serving as consultant to other hospital in town, 125 beds; salary or percentage with minimum guarantee; privilege private practice; town, 30,000, Pacific Northwest, 802, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

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CENT; Well established man in town of 15,000 needs associate; training in leading medical center would be advantageous.

CENT; Small South Carolina town offers good location for CENT; hospital available.

CENT; Histological clinic needs CENT on staff.

CENT; Southern town offers excellent opportunity for CENT; new hospital.

CENT Town of 20,000; county hospital; needs this specialty.

PEDIATRICIAN; Established physician in good southern town needs associate.

PEDIATRICIAN; Chain; good location; needs pediatrician.

PEDIATRICIAN; Board member in Virginia needs associate.

PEDIATRICIAN; Woman physician would like associate.

PEDIATRICIAN; Established physician wants associate with Florida location.

INTERNAL MEDICINE; City of 30,000; new hospital; wants Hape trained internist.

(Continued on page 48)

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The oral administration of aminophylline and other theophylline preparations has heretofore been limited by their tendency to cause gastric irritation. Often the limit of gastric tolerance has determined the dose employed.[1] Theophylline-sodium glycinate has the advantage of being "less irritating to the gastric mucosa. It is thus tolerated orally in larger doses than are possible with other theophylline preparations, and it can be administered by mouth in liquid form as well as non-enteric-coated tablet form."[2]

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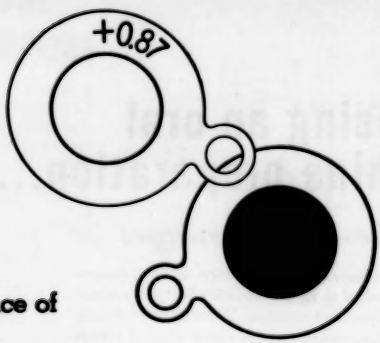
1. Goodman, L., and Gilman, A.: The Pharmacological Basis of Therapeutics. New York, The Macmillan Company, 1941; p. 281. 2. Council on Pharmacy and Chemistry, American Medical Association: New and Nonofficial Remedies, 1949. Philadelphia, J. B. Lippincott Company, 1949; p. 331.



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2. produces rapid cycloplegia
3. permits accurate refraction
4. assures a quick return of accommodation

Smith, Kline & French Laboratories

Philadelphia

1. Harrison, W. J.: Ocular Therapeutics, Springfield, Ill., Charles C. Thomas.

'Paredrine' T. M. Reg. U. S. Pat. Off.

(Continued from page 46)

WANTED—DIRECTOR OF STUDENT HEALTH DEpartment which has been directed by physician on part time basis; coeducational, 3500 students; $7000 including apartment; town of 100,000; Southeast. 825, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

QUALIFIED OBSTETRICIAN—EXCELLENT 14 MAN clinic; exceptional opportunity; prosperous Rocky Mountain resort region; percentage arrangement after 6 months should gross approximately $12,000; D265, Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED — ORTHOPEDIC SURGEON; DIPLOMATE or eligible; to become associated with department of surgery; long established group; salary 1st year followed by full partnership; California. 800, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

PUBLIC HEALTH DIRECTOR—LOCAL HEALTH ADministration experience or graduate training desirable; delightful southeastern mountainous resort area; $7000, 20 day vacation, sick leave; D188, Woodward Medical Bureau, 185 North Wabash, Chicago. C

SHAY MEDICAL AGENCY

55 E. Washington Street

Chicago 2, Illinois

ANESTHESIOLOGIST: 200 bed hospital; in large eastern city; seeks an anesthesiologist; salary open to discussion.

DENTIST: Excellent location for a dentist; in a beautiful remodelled building in California; $150 a month.

EENT: To take over established practice while doctor is sick; salary basis of 1st with possibility of becoming associate if agreeable to both; town of 40,000; East.

GENERAL PRACTITIONER—Immediate opening for associate; California; $600-$700 1st year; then man can get in excess of $20,000 yearly; mostly office practice.

INDUSTRIAL: Young man; for dispensary of large manufacturing concern; Mid-west city; duties surgery, general medicine and physical examinations; good salary.

INTERNIST: Three surgeons desire young man to join them in new clinic; 2 are diplomates of the American Board of Surgery and the other is a fellow of the American College of Surgeons; town of 40,000; in Mid-West.

INTERNIST: Two surgeons and an obstetrician would like to have an internist become associated with them; North Dakota; this is a prosperous community and offers a real opportunity to be of service.

LOCATION: General practitioner; for small mid-west town; good roads; clinic and some equipment available; within 30 miles of good hospitals.

LOCUM TENENS: For 4 weeks; beginning about August 12th; both and house; 10 room clinic available; near university center.

MEDICAL DIRECTOR: Minimum of $10,000 a year; for assistant medical director; large industrial concern near Chicago; 40 hour week.

OBSTETRICIAN-GYNECOLOGIST: Do you like to travel? a physician is desired to act as clinical studies with various individual specialists, clinics or academic centers; should prove to be an interesting position; headquarters in eastern city.

OPHTHALMOLOGIST: Associate for EENT man desired; $10000 a month or other arrangements can be worked out; city located here on Lake Michigan.

ORTHOPEDIST: Certified orthopedic surgeon; wants a young man who has completed the 1st year of his orthopedic board; to work with him; salary 1st, then junior partnership, later senior partnership; large eastern city.

OTOLARYNGOLOGIST: Fine opportunity; to work with 2 Board men in EENT; salary open; attractive clinic, over 300 patients daily.

PATHOLOGY: Certified man; to work on percentage basis for hospital; 230 beds; mid-west city.

PEDIATRICIAN: Young man; Board eligible/trained to Florida on location; one of finest groups in West Florida Coast; possible income with cooperative equal sharing of overhead.

PRACTICE AVAILABLE: In historic Virginia; big summer population; practice established; modern collection system; sole drug supply for town is physicians office; nurse available; doctor selling for price of equipment and drugs; terms cash storage $10,000 yearly.

PROCTOLOGIST: To head department of 20 man group; must be capable of covering entire field and be well trained; salary ranges from $6000-$15,000; pleasant mid-west location.

PSYCHIATRIST: Group of 3 in Mid-West will pay up to $12,000; for psychiatrist or neuro-psychiatrist; city of 170,000.

PUBLIC HEALTH: Physician needed; for mobile unit of blood center; 14 hours; 5 days a week; 8 hours a day; some traveling will be done; will be trained; big exposure, substantial increase of interest; replacement or increase.

RADIOLOGIST: Excellent opportunity with hospital and clinic; salary from $12,000-$15,000; to become full participating member of group; insurance and retirement features; large mid-west city.

RADIOLOGIST-PATHOLOGIST: Take complete charge of X-ray, laboratory department; hospital of 60 beds in Texas; salary open.

RESIDENT: For 150 bed general hospital; Florida; $200 and maintenance; approved by ACS.

STUDENT HEALTH: Assistant physician; needed for well known mid-west university; $5000 a year to start with 30 days vacation.

SURGEON: For new medical building; beautiful clean town; central location; now 60 bed hospital being remodeled; no competition; good climate; fine fishing; varied industries; school system above average; either full or private practice.

SURGICAL RESIDENCY: For 225 bed general hospital; West Coast; 1st year residency in approved 3 year residency program; $150 and room, board, laundry.

TEACHING POSITION: If you are young and qualified to teach anatomy, here is an opportunity to become associated with a well known eastern school of medicine as instructor in anatomy; desires someone who plans to make this his life work.

TUBERCULOSIS: Assistant medical director and staff physician; needed for hospital in town of present 25,000; in Mid-West; urged that they make selection at once.

VIROLOGIST: Associate professor wanted; to teach course in virology to graduate students; $6000 a year for 9 month school year.

(Continued on page 50)

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". . . all published studies of the results of penicillin therapy alone indicate that in early syphilis a failure rate of 15 to 20 per cent may be expected. . . . It is recommended that the penicillin treatment of patients with primary syphilis, secondary syphilis, early latent syphilis, late latent syphilis, and late syphilis be followed by 20 arsenoxide [oxophenarsine hydrochloride] injections . . . and 10 bismuth injections . . ."*

OVER 215,000,000 injections emphasize the spirocheticidal effectiveness and relative safety that have made MAPHARSEN a byword in syphilotherapy. Easily prepared and rapidly injected, it is equally adapted to the intensive, intermediate or prolonged treatment schedules — alone or with penicillin.

MAPHARSEN (oxophenarsine hydrochloride, Parke-Davis) is supplied in single dose ampoules of 0.04 Gm. and 0.06 Gm., in boxes of 10; and in multiple dose ampoules of 0.6 Gm., in boxes of 10.

*Office Management of Venereal Diseases, Bureau of Social Hygiene, Department of Health, City of New York, Sept. 1949, pp. 9 and 10.

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TRADEMARK
METHYL SALICYLATE BANDAGE

PROLONGED ANALGESIC THERAPY *plus* **FIRM ELASTIC SUPPORT**

Polyestol, a highly elastic, transparent plastic bandage, releases a total of 45 to 50 grams of methyl salicylate for absorption during its therapeutic life (a total of 60 hours application).

Polyestol bandaging provides local relief in rheumatoid conditions, fibrositis, myalgia, neuralgia, sprains, strains, etc.; may be used as an adjunct to oral salicylate therapy.

Polyestol **FEATURES**

- Rapid pain relief
- Firm elastic support
- Nonstaining
- Avoids gastric upset which may accompany oral salicylate therapy

AVAILABLE through your surgical supply dealer or prescription pharmacy.

COMPLETE LITERATURE ON REQUEST

DUNCAN C. McLINTOCK CO., INC.
591 MAIN STREET • HACKENSACK, NEW JERSEY

(Continued from page 48)

WANTED—MYCOLOGIST AND VIROLOGIST; QUALIfied for professorial appointments; department of infectious diseases, university medical school; physicians of outstanding attainments in academic field required. 801, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

ASSOCIATE—IN LARGEST GENERAL PRACTICE IN state, senior doctor retiring in 1 year; own small hospital; excellent opportunity; lovely small midwestern town; D1353, Woodward Medical Bureau, 185 North Wabash, Chicago. C

ANESTHESIOLOGIST—FIRST ASSISTANT IN PRIvate and hospital practice; 4 hospitals, each exceptionally equipped; splendid opportunity; association after 6 months; southwest resort area; D288, Woodward Medical Bureau, 185 North Wabash, Chicago. C

WANTED—GENERAL PRACTITIONER; CALIFORNIA licentiate; well qualified in fracture work or orthopedic surgery; to become associated with several physicians well established in San Joaquin Valley. 827, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

WANTED — PHYSICIANS; INTERESTING OPPORtunities for American Board men qualified to head departments, general and industrial physicians, recent graduates desirous of further training; strictly confidential. Burneice Larson, Medical Bureau, Palmolive Building, Chicago. C

INTERNS AND RESIDENTS WANTED

*The * signifies a hospital approved for internships and the + approved for residencies in specialties by the Council on Medical Education and Hospitals of the A. M. A. Consult Council's approved list for types of internships and residencies approved.*

WANTED—TWO RESIDENTS IN SURGERY; OFFERing training of 1 years duration in preparation for residency training in the surgical specialties; approved by the Council of American Medical Association; general hospital * + ; 175 beds, 30 bassinets; applicants must be graduates of class A American or Canadian medical schools; stipend $150 per month and maintenance. The Deaconess Hospital, Clifton Ave., and Straight St., Cincinnati 20, Ohio. D

WANTED—RESIDENT AND ASSISTANT RESIDENT; in internal medicine; approved for residency by AMA; 100 beds; active out patient department; including all the specialties; salary $165 per month plus uniforms and maintenance. Apply: Director, South Baltimore General Hospital.* + 1213 Light Street, Baltimore 30, Maryland. D

SECOND YEAR INTERNSHIP AVAILABLE—APproved hospital * ; 3070 admissions including 1300 births; 133 bed addition in progress to make 248 beds; excellent opportunity to establish general practice in attractive community following 12 months surgical rotation stipend, uniforms and maintenance; approved school graduates only. Write all information: Charles L. Cotter, Superintendent, Washington County Hospital, Hagerstown, Maryland. D

RESIDENT IN RADIOLOGY—JULY, 1950 OR JANUary, 1951; for 292 bed ACS approved hospital * + covering northern half of Maine; all specialties represented; 2 year approval Board of Radiology; excellent training and pathological facilities. Apply: Dr. H. A. Heath, Department Radiology, Eastern Maine General Hospital, Bangor, Maine. D

ASSISTANT RESIDENCY—IN INTERNAL MEDICINE; available July 1, 1950; in hospital * with progressive teaching program; approved by the American Board of Internal Medicine; salary $100 per month and maintenance. Apply: Department of Internal Medicine, Ohana-peake and Ohio Hospital, Clifton Forge, Virginia. D

APPROVED RESIDENCY—IN INTERNAL MEDICINE; available July 1, 1950. St. Luke's Hospital,* + Fargo, North Dakota; residency approved by the AMA; salary $150 a month with room and board. Apply: Chief Medical Resident, St. Luke's Hospital, Fargo, North Dakota. D

WANTED—CHIEF RESIDENT; SEPTEMBER 1, 1950; graduate of approved medical school with Pennsylvania license; salary $200 and maintenance. Director, Methodist Episcopal Hospital, Broad & Wolf Streets, Philadelphia 48, Pennsylvania. D

GENERAL RESIDENCY—IN FULLY APPROVED 250 bed teaching hospital * + ; located in a university town; excellent experience for doctor with completed internship; stipend open depending on qualification. Write: Dr. Bruce Stark, Bishop DeStanbriand Hospital, Burlington, Vermont. D

INTERNSHIPS NOW AVAILABLE—GENERAL ROtating service; 240 bed hospital * + approved by AMA and ACS; must be graduate of approved medical school; stipend $125 per month and full maintenance. Methodist Hospital, Peoria 5, Illinois. D

WANTED—RESIDENT; FOR 100 BED HOSPITAL; approved by College of Surgeons; class A graduate; salary $200 per month; full maintenance. Apply: Bourdette Hospital, Kingston, New York. D

WANTED IMMEDIATELY—MEDICAL RESIDENT; St. Joseph Hospital,* + Lexington, Kentucky; large medical and surgical clinic service; full maintenance and stipend of $140 plus $60 for maintenance of family. D

RESIDENT POSITION OPEN — 200 BED MODERN progressive general hospital; surgery and obstetrics are particularly active; full maintenance plus liberal salary. Massachusetts temporary license required. Box 240, Fall River, Massachusetts. D

ASSISTANT RESIDENT IN MEDICINE—AMA AND Board approved; 1000 medical admissions; active out-patient. Fairview Park Hospital,* + 3395 Franklin Boulevard, Cleveland 13, Ohio. D

RADIOLOGY RESIDENCY—THREE YEAR APPROVED residency; Bowman Gray School of Medicine and North Carolina Baptist Hospital * + Apply: Director of Radiology, Baptist Hospital, Winston-Salem 7, North Carolina. D

APPROVED RADIOLOGY RESIDENCY—$100 MONTH plus full maintenance. Apply: Dr. Charles Lieberman, Newton Lower Falls, Massachusetts. D

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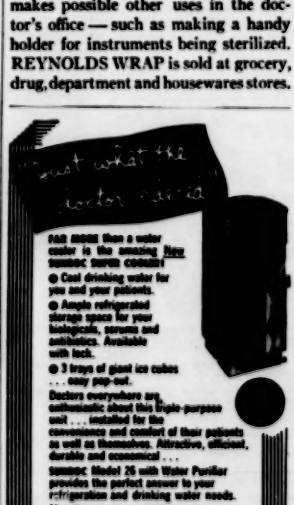
"The Pure Aluminum Foil in Handy Rolls"

Reynolds Wrap is pure aluminum foil, 12" width, packaged to tear straight from the roll. The material is non-toxic, moisture-proof, grease-proof, odor-proof and impervious to light. It molds readily to any shape and seals snugly by just folding the edges together. These properties make it an ideal wrap to keep foods fresh, as well as for many other protective uses — such as wrapping perishable drugs, keeping moisture from delicate rustable instruments, etc. Its resistance to heat, which enables housewives to use REYNOLDS WRAP for flavor-sealed cooking and baking, also makes possible other uses in the doctor's office — such as making a handy holder for instruments being sterilized. REYNOLDS WRAP is sold at grocery, drug, department and housewares stores.



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A1950

COLUMBIA HOSPITAL*+—MILWAUKEE, WISCONsin has available a 1 year residency; to obstetrics and gynecology; to start on August 1, 1950; salary $100 per month; applications are being received now. D

RESIDENT DOCTOR—APPOINTMENT AUGUST 1ST for 6 months; approved, general voluntary Westchester, New York hospital; subsidized remuneration, prerequisites approved medical school and internship. Box 9040 D, % AMA.

COLUMBIA HOSPITAL*+—MILWAUKEE, WISCONsin desires to secure 1 general resident; to fill an appointment for 1 or 2 years; to start August 1, 1950; salary $100 per month; applications are being received now. D

WANTED—TWO GENERAL RESIDENTS; JULY 1ST; 165 bed hospital*; AMA and AOB approved; graduates from approved schools only; $150 per month and maintenance. 86, Lake Hospital, Pasadena 8, California. D

GENERAL SURGICAL RESIDENCY — AVAILABLE July 1, 1950; in an accredited hospital*+ with university teaching affiliation. For particulars wire: Dr. Hugh McKenna, St. Joseph Hospital, 2100 Darling Street, Chicago, Illinois. Reverse charges. D

WANTED — RESIDENT PHYSICIAN; MICHIGAN; graduate of an approved American medical school; must survey done by Board man; approved medical residency in pulmonary diseases; salary open; complete family maintenance and living quarters. Box 9713 D, % AMA.

RESIDENCY—FOR GENERAL PRACTICE; AVAILable immediately; 82 bed hospital with new 101 bed hospital to be completed this year; large county practice; $300 a month and maintenance. Superintendent, Twin Falls County Hospital, Twin Falls, Idaho. D

ORTHOPAEDIC SURGERY — SOUTHWEST ORTHOpaedic training program; complete 2 years Board approved training; El Paso, Texas and Hot Springs, New Mexico; vacancy Jan. 1, 1951; furnished apartment and liberal stipend. Reply Drs. Bree, Bunch and Leonard, 520 Montana Street, El Paso, Texas or Dr. W. L. Minear, Carrie Tingley Crippled Children's Hospital,+ Hot Springs, New Mexico. D

ORTHOPEDIC RESIDENT — WANTED FOR BOARD approved 3 year orthopedic residency; adult, children's, basic science and fracture requirements met; salary $270 per month; available July 1, 1950. Box 9830 D, % AMA.

WANTED—OBSTETRICAL RESIDENT; AT HOSPItal*+ having over 6,000 deliveries per year, stipend $200 per month plus maintenance. Write: Chairman, Resident Committee, St. Alexis Hospital, Cleveland, Ohio. D

WANTED—GENERAL PRACTICE RESIDENTS; FOR AMA approved residency; in 170 bed hospital+ accessible to a university medical center; stipend $300 per month. Write: Superintendent, St. Francis Hospital, Beech Grove, Indiana. D

TWO RESIDENT PHYSICIANS WANTED—FOR rotating residencies; to a 120 bed fully approved general hospital*; must be licensed to practice medicine in Penna.; an salary and apply; immediately situated near Fairmount Park in suburban Philadelphia; remuneration $100 per month plus maintenance in our doctors home. Memorial Hospital, 6009 Bishop Ave., Philadelphia 31, Pennsylvania. D

GU RESIDENCY—AVAILABLE IMMEDIATELY; APproved 1 or 2 years; 725 bed general hospital*+; in large Mid-West city; large GU service; adequate stipend. Box 9027 D, % AMA.

GP RESIDENCY — FOR ONE YEAR; AVAILABLE immediately; 725 bed general hospital*+; in large Mid-West city; large service; adequate stipend. Box 9028 D, % AMA.

ASSISTANT RESIDENT IN SURGERY—WANTED BY October 1, 1950; fully approved 4 year program; 250 bed Ohio hospital*+; stipend $100 month plus maintenance. Box 9024 D, % AMA.

RESIDENT IN RADIOLOGY — WANTED IMMEDIately; approved 3 year program; 250 bed hospital*+; in northern Ohio; stipend $100 month plus maintenance. Box 9025 D, % AMA.

WANTED — INTERN; FOR SMALL PRIVATE HOSpital; in central New Jersey community of 225,000; metropolitan area; general medical and surgical experience; responsible stipend plus full maintenance. Box 9023 D, % AMA.

WANTED — INTERNS IN OBSTETRICS-GYNE-cology; starting July 1950; 60 bed university affiliated hospital*+; large service; full maintenance plus honorarium. Write: Executive Director, Methodist Hospital, 4502 Fourth Avenue, Brooklyn, New York. D

WANTED — RESIDENT; INTERNAL MEDICINE; fully approved, large voluntary hospital*+. Apply: Director, Paterson General Hospital, Paterson 3, New Jersey. D

WANTED—FOUR RESIDENTS; WHO HAVE COMpleted approved internship for general practice residency, starting July 1st; AOA approved; 135 beds; stipend $200 monthly and maintenance. Apply: Administrator, Shannon Hospital, San Angelo, Texas. D

APPROVED RESIDENCY IN SURGERY—APPOINTment to 1st year in 3 year program; effective July 1, 1950; salary $100 per month with maintenance; personal interview required. St. Elizabeth Hospital,*+ Lafayette, Indiana. D

WANTED—THREE GENERAL RESIDENTS; MUST be graduate of class A school; position open July 1st, August 1st; salary $200 per month with board and room. Director of St. Mary's Infirmary,+ 1 bed capacity, 250 and 150 capacity 7470 patients. Apply: Sr. M. H. Clair, St. Mary's Infirmary, Galveston, Texas. D

BRACKENRIDGE HOSPITAL*+ — AUSTIN, TEXAS; 1 GYN-OB resident and 2 rotating residents; open for July 1, 1950-1951. D

WANTED — RESIDENT PHYSICIANS; MIXED ROtating service; immediate appointments; new 115 bed acute general hospital; approved ACS; salary $200 per month and maintenance. Apply: Director, Mount Sinai Hospital, Hartford, Connecticut. D

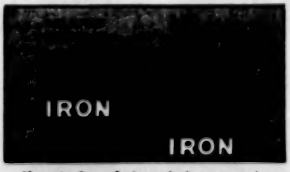
(Continued on next page)

How much iron for the second month?

THE STORE OF IRON a baby is born with, as you know, starts to run low during the baby's second month.

That's why so many doctors recommend Clapp's *iron-rich* Cereals from the second month on!

Doctors agree Clapp's Cereals supply that important iron—in a healthful, natural way. And babies really like the taste of Clapp's Cereals.



Clapp's Cereals have 3 times more iron than unfortified home-cooked cereals. They need no cooking . . . dissolve almost instantly in warm milk or formula.

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PHYSICAL MEDICINE AND REHABILITATION—residency approved for 2 years by American Board; large active teaching hospital *+; excellent facilities; $75 per month plus maintenance; available July 1st. Write: Superintendent and Medical Director, Philadelphia General Hospital, Philadelphia, Pennsylvania. D

ASSISTANT RESIDENT—MALE OR FEMALE; PRIvate 100 bed psychiatric hospital +; approved for residency training; organized visiting staff; salary and full maintenance; open now. Windsor Hospital, Chagrin Falls, Ohio. D

RESIDENCY IN INTERNAL MEDICINE—THREE year training program; approved by the American Medical Association and the American Board of Internal Medicine; 320 bed general hospital.*+ Apply: Superintendent, The Toledo Hospital, Toledo 6, Ohio. D

ASSISTANT RESIDENCY SURGERY—APPROVED BY AMA for training for preparation for the surgical specialties. Fairview Park Hospital,*+ 3305 Franklin Blvd., Philip Vollmer Jr., Superintendent, Cleveland 13, Ohio. D

RESIDENCIES AVAILABLE IMMEDIATELY — TWO physicians; for residents general hospital Florida; 30 per cent charity; actual surgical experience offered; salary open. Box 9795 D, % AMA.

APPROVED — NEUROPSYCHIATRIC TRAINING—Up to 3 years; large general voluntary hospital*+ and affiliated 62 bed psychiatric clinic+ with expanding outpatient and child psychiatry departments; intensive therapy dynamically oriented; city near Chicago; psychiatry stipend $250 plus family quarters; brief biography and snap shot in reply. Box 9798 D, % AMA.

WANTED—MEDICAL RESIDENT; FOR UNEXpected vacancy July 1st; 3 year approved service; in 400 bed teaching hospital *+; in New York City; must be graduate of approved medical school with approved internship; full maintenance and $50 per month. Box 9793 D, % AMA.

RESIDENTS—FOR JULY 1, 1950; ROTATING residencies available; in busy well equipped general hospital *+; in metropolitan Philadelphia area; ideal for general practice; weekly clinical meetings; stipend and full maintenance; also vacancies for several interns. Apply: Director, The Chester County Hospital, West Chester, Pennsylvania. D

APPROVED RESIDENCY—ONE YEAR RESIDENCY in general surgery; available July 1, 1950; salary $100 monthly plus full maintenance. Address: Superintendent, United Hospital,*+ Port Chester, New York. D

WANTED — GENERAL RESIDENT; MUST BE graduate of class A school; position now available; salary $250 per month with living quarters provided by 4 room cottage, completely furnished. Apply: Lafayette Home Hospital, Lafayette, Indiana. D

IMMEDIATELY AVAILABLE — ONE CHIEF RESIdency; requirements internship and previous 1 year residency; stipend $300; 1 general resident; requirement previous internship; stipend $200; we are also accepting applications for general and chief resident for July 1, 1951. Box 9799 D, % AMA.

RESIDENTS AND INTERNS—TWO ASSISTANT RESIdents in surgery, $150; resident in medicine, $200; assistant resident in medicine, $150; rotating interns, $100; resident in pediatrics, $200; 180 bed hospital + with 100 bed addition and 200 bed affiliation, general hospital, approved; all salaries plus maintenance. City Memorial Hospital, Winston-Salem, North Carolina. D

WANTED—TWO INTERNS; FOR UNEXPECTED vacancies; starting July 1, 1950; this is an approved rotating internship in a 230 bed hospital *+ which has very active surgical, obstetrical and medical services, approved residencies in anesthesiology and pathology and a comprehensive teaching program; stipend $125 per month plus maintenance, including living quarters for married physicians with families. Apply: John J. Bonica, MD, Chairman of Intern Committee, Tacoma General Hospital, Tacoma, Washington. D

UNIVERSITY AFFILIATED APPROVED THREE year internal medicine residency; 2 appointments available; 325 bed general hospital.*+ Apply: Mount Carmel Mercy Hospital, Detroit 35, Michigan. D

RESIDENCY — INTERNAL MEDICINE; AVAILABLE immediately; approved; 235 bed general hospital *+; $150 monthly, full maintenance. St. Peter's General Hospital, New Brunswick, New Jersey. D

WANTED—RESIDENT IN MEDICINE; APPROVED by AMA and the American Board of Internal Medicine. The Methodist Hospital,*+ Houston, Texas. D

RESIDENTS WANTED AT ONCE—MUST BE A GRADuate of grade A school; rotating service; 240 bed hospital *+ approved for internships and mixed residencies; salary $200 per month plus maintenance. Methodist Hospital, Peoria 5, Illinois. D

WANTED—RESIDENT; FOR A COMBINED SERvice, ophthalmology and otolaryngology; fully approved hospital +; starting salary $150 a month and complete maintenance; give full details in 1st reply. Box 9549 D, % AMA.

WANTED—RESIDENTS FOR GENERAL PRACTICE training; 400 bed hospital *+; AMA approved for internship and major specialties; well balanced teaching program. Write: Superintendent, Wesley Hospital, Wichita 6, Kansas. D

PHYSICIAN—FOR RESIDENCY PULMONARY DISease; hospital + approved AMA & ACS; complete medical, surgical and out patient services; good salary and full maintenance; vacancy also for physician trained in pulmonary disease; graduates of approved American medical schools preferred; approved internship required; metropolitan location; East. Box 9686 D, % AMA.

ANESTHESIOLOGY RESIDENCY—APPROVED TWO year residency; integrated with other teaching program; starting July, 1950 or after; full maintenance and $100 1st year; $150 2nd year. Apply: Daniel C. Moore, MD, Director of Anesthesia, Virginia Mason Hospital,*+ Seattle, Washington. D

(Continued on page 54)

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Freeman has been making fine quality surgical supports for more than 50 years. Every Freeman support is correctly designed and carefully constructed to insure its efficacy.

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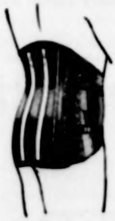

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Books Received

Books received by The Journal are acknowledged in this column. Selections will be made for more extensive review in the interests of The Journal readers as space permits. Books listed in this department are not available for lending. Information concerning them will be supplied on request.

Group Medicine & Health Insurance in Action. By Robert E. Rothenberg, A.B., M.D., Chairman, Medical Group Council, The Health Insurance Plan of Greater New York, New York, Karl Pickard, A.B., M.D., Secretary, Central Medical Group of Brooklyn, Brooklyn, and Joel E. Rothenberg, A.B., J.D., Attorney, Medical Group Council, Health Insurance Plan of Greater New York, New York. Introduction by George Baehr, M.D. Cloth. $5. Pp. 278, with illustrations. Crown Publishers, 419 Fourth Ave., New York 16, 1949.

Proceedings: Forty-Eighth Annual Conference, Surgeon General, Public Health Service and Chief, Children's Bureau of the Federal Security Agency with State and Territorial Health Officers, State Mental Health Authorities, State Hospital Survey and Construction Authorities, October 19 and 22, 1949, Federal Security Building, Washington, D. C. Paper. Pp. 85. Federal Security Agency, Public Health Service, Washington 25, D. C., [n.d.].

A Bill to Provide a Program of National Health Insurance and Public Health and to Assist in Increasing the Number of Adequately Trained Professional and Other Health Personnel, and for Other Purposes, 81st Congress, 1st Session, April 25 (Legislative Day, April 11), 1949, in the Senate of the United States. By Mr. Thomas, and others. S. 1679. Paper. Pp. 163. Washington, D. C., [1949].

Catalogue of an Exhibition of Books, Manuscripts and Relics Commemorating the Bicentenary of Edward Jenner, 17 May 1749—26 Jan. 1823. Paper. 60 cents, 2s. Pp. 37, with 3 illustrations. Published for the Trustees, The Wellcome Historical Medical Museum, 28 Portman Square, London, W.1, by Oxford University Press, 114 5th Ave., New York 11; Amen House, Warwick Sq., London, E.C.4, 1949.

Brain and Behaviour: Induction as a Fundamental Mechanism of Neuro-Psychic Activity. An Experimental and Clinical Study with Consideration of Educational, Mental-Hygienic and General Sociological Implications. By N. E. Ischlondsky, M.D. Cloth. $7. Pp. 182, with 46 illustrations. C. V. Mosby Company, 3207 Washington Blvd., St. Louis 3, 1949.

R. Shabtai Donnolo (913-985). First Section: Medical Works on the Occasion of the Millennium of the Earliest Hebrew Book in Christian Europe. Edited with a Commentary by Suessman Muntner. Second Section: Contributions to the History of Jewish Medicine by Suessman Muntner. [In Hebrew]. Half-cloth. Pp. 147; 208. Mosad Haraw Kook, Jerusalem, 1949.

The Sexual Perversions and Abnormalities: A Study in the Psychology of Paraphilia. By Clifford Allen, M.D., M.R.C.P., D.P.M., Physician in Charge of the Psychiatric Department of the Seamen's Hospital, Greenwich, England. Second edition. Cloth. $5. Pp. 346. Oxford University Press, 114 5th Ave., New York 11; Amen House, Warwick Sq., London, E.C.4, 1949.

Antibiotics: A Survey of Penicillin, Streptomycin, and Other Antimicrobial Substances from Fungi, Actinomycetes, Bacteria, and Plants. By H. W. Florey, M.A., M.D., Ph.D., and others. Volumes I and II. Cloth. $39.75 per set. Pp. 628; 631-1774, with 265 illustrations. Oxford University Press, Amen House, Warwick Sq., London, E.C.4; 114 5th Ave., New York 11, 1949.

(Continued on page 54)

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*Phillips, F. and McCook, W.: *Early Management of Injuries of the Chest*, New Orleans M. & S. J. 102:101, 1949 • Shipley, E. and Dodd, M.: *Clinical Observations on Furacin Soluble Dressing in the Treatment of Surface Infections*, Surg., Gynec. & Obst. 84:366, 1947.

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(Continued from page 52)

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PEDIATRICIAN ALLERGIST — MEMBER BOTH Boards; instructor pediatrics at university; 36 years old; daughter's health necessitates purchase or association of practice in Florida, Texas, or West; write particulars. Box 9854 E. % AMA.

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WANTED — REGISTERED NURSES; TRAINED IN tuberculosis nursing; men and women; for state hospital assignments as head nurse at $230-$297 per month or supervising nurse at $230-$319 per month; nurses with special qualifications may be started above the minimum range; opportunity for advancement; excellent retirement and insurance plan; meets approved employment standards of State Nurses Association. Write: Division of Personnel Service, Department of Public Welfare, Springfield, Illinois.

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OPHTHALMOLOGIST—OFFICE EXPERIENCE; GOOD basic course and residency; some ENT; details on reply; consider all proposals for summer months; Iowa or Florida locum tenens. Box 9815 H. % AMA.

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SURGEON—AGE 36; DIPLOMATE OF AMERICAN Board of Surgery; FACS; chief surgeon of 85 bed general hospital, licensed Pennsylvania, North Carolina; desires association with surgeon, group, clinic or teaching institution preferably in East or South. Box 9853 I. % AMA.

PATHOLOGIST—37; DIPLOMATE; DESIRES AFFILIation with institution or group; interested in teaching and research; well qualified in surgical pathology. Box 9863 I. % AMA.

ASSISTANT TO EENT—SIX MONTHS POST GRADUate; willing to work and learn; further information on request. Box 9852 I. % AMA.

RADIOLOGIST—BOARD ELIGIBLE IN DIAGNOSIS and therapy; seeks appointment in hospital, group or office where good radiology is practiced. Box 9851 I. % AMA.

OPHTHALMOLOGIST—CERTIFIED 1943; DOING $20,000; New England city; wishes to relocate; excellent eye surgeon; trained and eligible certification ENT; best references; age 39; married; 2 children. Box 9850 I. % AMA.

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BUSINESS MANAGER—BS BUSINESS-CHEMISTRY; experienced in personnel work; married; desires position as administrator for clinic or group of doctors. Box 9839 I. % AMA.

GENERAL SURGEON—BOARD ELIGIBLE; DESIRES association with group, clinic or well-established surgeon; single; age 32; available July, 1950. Box 9824 I. % AMA.

CERTIFIED OTOLARYNGOLOGIST—31; 6 YEARS' experience; desires private practice or group association; no eye work; accept part time sustaining position; city over 100,000. Box 9829 I. % AMA.

(Continued on page 56)

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(Books Received Continued)

PRACTICAL NEUROLOGICAL DIAGNOSIS, WITH SPECIAL REFERENCE TO THE PROBLEMS OF NEUROSURGERY. By R. Glen Spurling, M.D., Clinical Professor of Surgery (Neurosurgery), University of Louisville School of Medicine, Louisville, Kentucky. Fourth edition. Cloth. $5. Pp. 268, with 101 illustrations. Charles C Thomas, Publisher, 301-327 E. Lawrence Ave., Springfield, Ill., 1950.

BRUCELLOSIS (UNDULANT FEVER): CLINICAL AND SUBCLINICAL. By Harold J. Harris, M.D., F.A.C.P. With the Assistance of Blanche L. Stevenson, R.N. Foreword by Walter M. Simpson, M.S., M.D., F.A.C.P. Second edition. Cloth. $10. Pp. 617, with 111 illustrations. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 49 E. 33rd St., New York 16, 1950.

MICROPHTHALMOS AND ANOPHTHALMOS WITH OR WITHOUT COINCIDENT OLIGOPHRENIA: A CLINICAL AND GENETIC-STATISTICAL STUDY. By Torsten Sjögren and Tage Larsson. Translated by Erica Odelberg. Acta psychiatrica et neurologica, Supplementum 56. Paper. 15 Swed. crowns. Pp. 103, with 8 illustrations. Ejnar Munksgaard, Nørregade 6, Copenhagen, 1949.

GENERAL RURAL HEALTH SURVEY, SINGUR HEALTH CENTRE, 1944. By R. B. Lal, M.B.B.S., D.P.H., D.T.M.&H., and S. C. Seal, M.B., D.P.H., F.A.P.H.A. (From the Section of Epidemiology and Vital Statistics, All-India Institute of Hygiene and Public Health, Calcutta.) Boards. 50 rupees. Pp. 323, with 44 illustrations. Government of India Press, Calcutta, India, 1949.

PRIMER OF ALLERGY: A GUIDEBOOK FOR THOSE WHO MUST FIND THEIR WAY THROUGH THE MAZES OF THIS STRANGE AND TANTALIZING STATE. By Warren T. Vaughan, M.S., M.D. Third edition, revised by J. Harvey Black, M.D. Cloth. $3.50. Pp. 175, with illustrations by John P. Tillery. The C. V. Mosby Company, 3207 Washington Blvd., St. Louis 3, 1950.

STILLBIRTHS: THEIR EPIDEMIOLOGY AND SOCIAL SIGNIFICANCE. By Ian Sutherland, M.A., D.Phil., F.S.S. With a Foreword by John A. Ryle, M.A., M.D., F.R.C.P., Professor of Social Medicine in the University of Oxford, Oxford, England. Paper. $1.50. Pp. 95. Oxford University Press, 114 Fifth Ave., New York 11; Amen House, Warwick Sq., London, E.C.4, 1949.

OSTEOPERIOSTITIS: PIÓGENA, TÍFICA, PARASITARIA. Por el Dr. D. V. Bosch Olives, cirujano ortopédico del Hospital de la Santa Cruz y San Pablo de Barcelona. Colección española de monografias médicas, director: Prof. Dr. J. Puig Sureda. Paper. 20 pesetas. Pp. 69, with 14 illustrations. Ediciones BYP, Calle Calabria, 66 al 76, Barcelona, 1949.

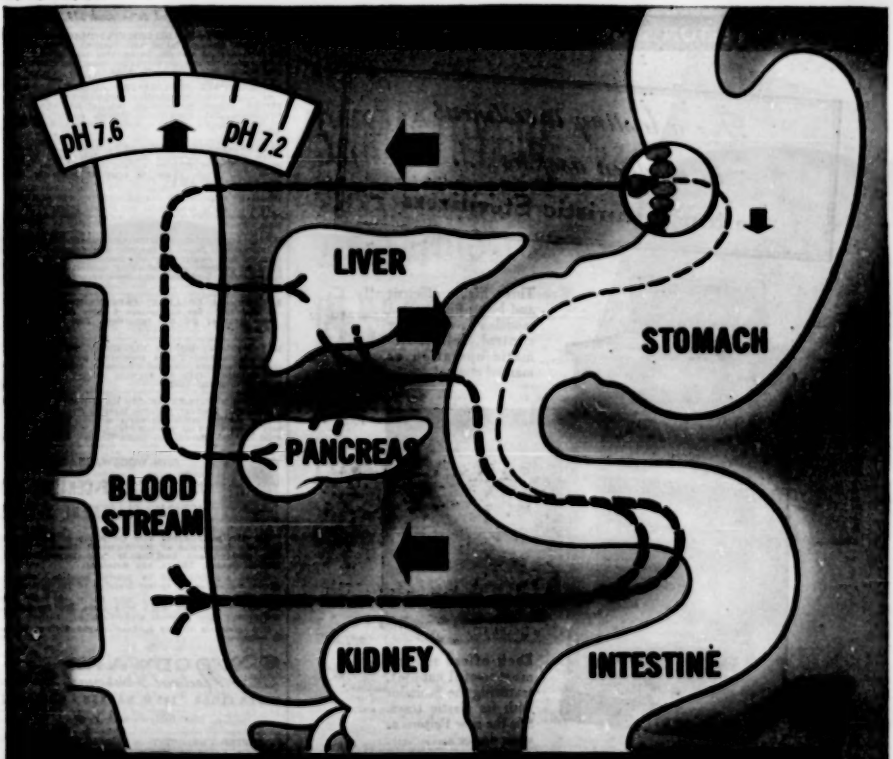
DAS INTRAKRANIELLE SUBDURALE HÄMATOM. Von Hugo Krayenbühl und Gaetano G. Noto. Lieferung 1, Sammlung innere Medizin und ihre Grenzgebiete, herausgegeben von Prof. Dr. med. P. H. Rossier und Priv.-Doz. Dr. med. O. Spühler. Paper. 18.50 Swiss francs. Pp. 175, with 32 illustrations. Hans Huber, Marktgasse 9, Bern 16, 1949.

A SHORT HISTORY OF PHYSIOLOGY. By Kenneth J. Franklin, D.M., F.R.C.P., Professor of Physiology at the Medical College of St. Bartholomew's Hospital, London. Second edition. Cloth. $2; 10s.6d. Pp. 147, with 16 illustrations. Staples Press Ltd., Mandeville Place, London W.1; Staples Press Inc., 70 E. 45th St., New York 17, 1949.

COMMUNITY HEALTH ORGANIZATION. By Ira V. Hiscock, M.P.H., Sc.D., Chairman, Department of Public Health, Yale University, New Haven. Fourth edition. Cloth. $2.75. Pp. 278. The Commonwealth Fund, Division of Publications, 41 E. 57th St., New York 22; Oxford University Press, Amen House, Warwick Sq., London E.C.4, 1950.

VACUUM EQUIPMENT AND TECHNIQUES. Edited by A. Guthrie, Ph.D., and R. K. Wakerling, Ph.D. National Nuclear Energy Series, Manhattan Project Technical Section, Division I-Volume I. Cloth. $2.50. Pp. 264, with illustrations. McGraw-Hill Book Company, Inc., 330 W. 42nd St., New York 18; Aldwych House, Aldwych, London, W.C.2, 1949.

(Continued on page 58)



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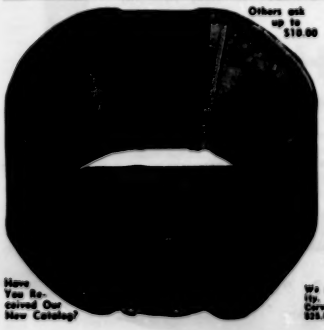

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RADIOLOGISTS—DIPLOMATES AMERICAN BOARD or eligible for examination; opportunities in private practice, groups, partnerships, hospital locations. A. W. Donaldson, M.D., Professional Bureau, American College of Radiology, St. Joseph's Mercy Hospital, Ann Arbor, Michigan. 1

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CERTIFIED INTERNIST—37; GRADUATE CORNELL University Medical; training includes 2 year internship; 2 year medical residency; naval medical corps 3 years; past 4 years private practice, internal medicine. Woodward Medical Bureau, 185 North Wabash, Chicago. 1

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RESIDENT IN SURGERY — YOUNG PHYSICIAN; would like 1 to 3 years surgical residency; in large hospital approved for Board credit; available July 1st. Medical Placement and Mailing Service, 760 Juniper Street, N.E., Atlanta, Georgia. 1

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WANTED—PHYSICIAN, PREFERABLY WITH PH.D., to serve as associate professor of microbiology, university medical school and, also, physician or Ph.D. to head departments of serology, bacteriology and microbiology in teaching hospital; West. 833, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. K

BIOLOGIST — PH.D.; TO DIRECT TOXICOLOGICAL investigation at atomic energy control plant in the middlewest; experience in radioactivity desired; good salary; good working conditions. Woodward Medical Bureau, 185 North Wabash, Chicago. K

WANTED—SCIENTISTS, Ph.D's, AND CANDIDATES with lesser training; opportunities with teaching and research institutions, hospitals and industry; nation-wide serving; negotiations strictly confidential. Burneice Larson, Medical Bureau, Palmolive Building, Chicago. K

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WANTED — REGISTERED LABORATORY TECHNIcian for internists; X-ray experience desired; salary, $250 per month. Box 9770 L, % AMA.

WANTED—ORTHOPTIC TECHNICIANS; FOR APproved eye hospital 4-; salary open; give full details in 1st reply. Box 9550 L, % AMA.

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HEAD TECHNICIAN — $5000, MAINTENANCE; 100 bed New York hospital; staff of 4 technicians; unusually attractive location; new laboratory under construction. T1140, Woodward Medical Bureau, 185 North Wabash, Chicago. L

WANTED — TISSUE TECHNICIAN; TO ASSIST IN handling of surgical and necropsy tissues as well as preparing teaching charts of microscopic slides; should be qualified to direct staff of 4 technicians; university medical center. 830, Burneice Larson, Medical Bureau, Palmolive Building, Chicago. L

LABORATORY TECHNICIAN—FOR WELL ESTABblished clinic having staff of 30 specialists; well equipped laboratory; excellent location; middle west university town; 5½ day week. T1124, Woodward Medical Bureau, 185 North Wabash, Chicago. L

MEDICAL TECHNOLOGIST—REGISTERED, DEGREE, experienced; able to teach; 200 bed hospital with approved school for technologists; eastern state capital and university town. T1153, Woodward Medical Bureau, 185 North Wabash, Chicago. L

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(Books Received Continued)

Die Poliomyelitis bearbeitet nach den Erfahrungen bei den Berliner Epidemien 1947/49. Herausgegeben von Dr. Albrecht Tietze und Dr. Paul Kühne. 1. Band, 1. Teil, Aktuelle Fragen der inneren Medizin. Boards. 14 marks. Pp. 144, with 38 illustrations. Walter de Gruyter & Co., Genthiner Str. 13, Berlin W 35, 1949.

Hypothesen over de oorsprong van virus en virus-soorten. Door W. A. Collier. [Hypotheses on Nature of Viruses and Virus Strains.] O.N.O. Publicatie 3. Overdruk uit "Chronica Naturae," No. 105, 11. Paper. No pagination. Organization for Scientific Research, Koningsplein Zuid 11, Batavia, Indonesia, 1949.

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Medical Diseases of the Kidney (an Atlas and Introduction). By J. F. A. McManus, M.D., Associate Professor of Pathology, The Medical College of Alabama, Birmingham, Alabama. Cloth. $6. Pp. 176, with 100 illustrations. Lea & Febiger, 600 S. Washington Sq., Philadelphia 6, 1950.

Reorganization of Federal Medical Activities: A Report to the Congress by the Commission on Organization of the Executive Branch of the Government, March 1949. Paper. 25 cents. Pp. 57, with illustrations. Supt. of Doc., Government Printing Office, Washington 25, D. C., 1949.

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Verletzungen der Harnorgane: Ein kurzer Beitrag zur Diagnose, Indikation und Technik operativer Behandlung. Von Prof. Dr. H. Boeminghaus. Second edition. Boards. 18 marks. Pp. 141, with 194 illustrations. Georg Thieme, Thomaskirchhof 21, (10b) Leipzig C1, 1949.

Trastornos del crecimiento y del desarrollo sexual. Por J. Ma. Cañadell, jefe del Departamento de endocrinologia de la Clinica médica "B," Barcelona. Cloth. 75 pesetas. Pp. 233, with 88 illustrations. Publicaciones médicas, José Janés, editor, Muntaner, 316, Barcelona, 1949.

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Quinidine in Disorders of the Heart. By Harry Gold, M.D., Professor of Clinical Pharmacology at Cornell University Medical College, New York. Cloth. $2. Pp. 115. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 49 E. 33rd St., New York 16, 1950.

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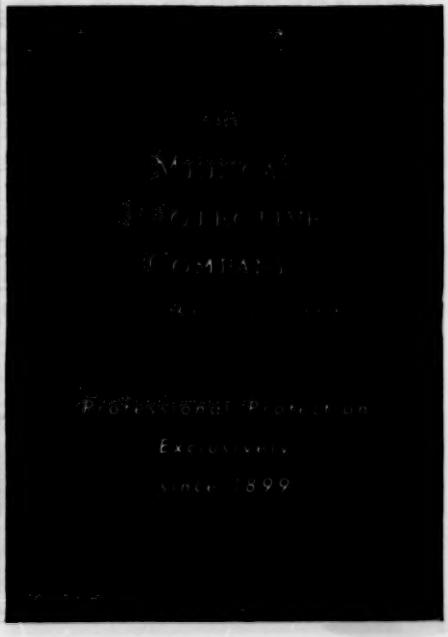

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BIOLOGICAL ACTIONS OF SEX HORMONES. By Harold Burrows, C.B.E., Ph.D., F.R.C.S. Second edition. Cloth. $8.50. Pp. 615, with 8 illustrations. Cambridge University Press, Bentley House, 200 Euston Rd., London, N.W.1; American Branch, 51 Madison Ave., New York 10, 1949.

CLARKE SCHOOL STUDIES CONCERNING THE HEREDITY OF DEAFNESS. MONOGRAPH 1: PEDIGREE DATA 1930-1940. By Louise A. Hopkins, M.S., and Ruth P. Guilder, M.D. Paper. Pp. 163, with illustrations. The Clarke School for the Deaf, Round Hill, Northampton, Mass., 1949.

ANNUAL REPORT OF THE KING EDWARD VII COLLEGE OF MEDICINE, 1948. By Dr. D. W. G. Faris, C.B.E., M.B., B.S., Acting Principal, College of Medicine, Singapore. Paper. $1.50. Pp. 31. Government Publications Bureau, General Post Office, Fullerton Building, Singapore, 1949.

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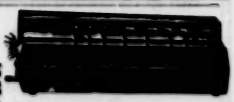

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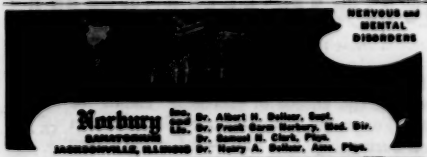

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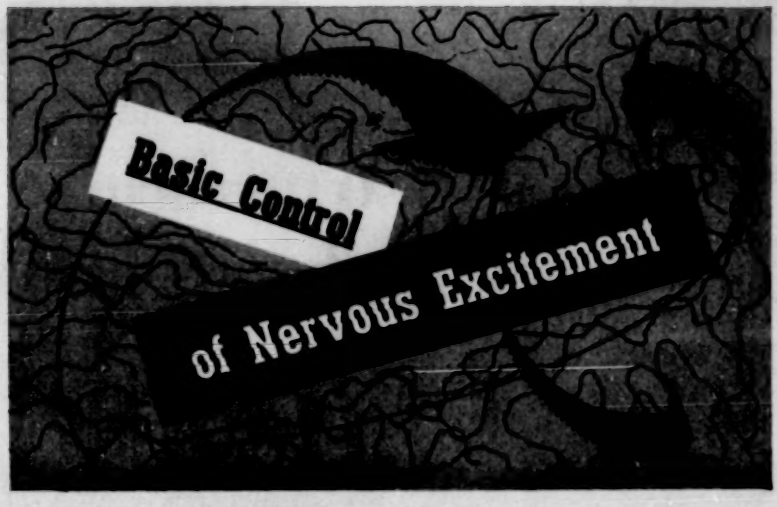

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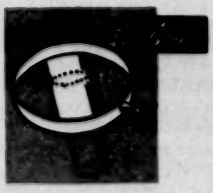

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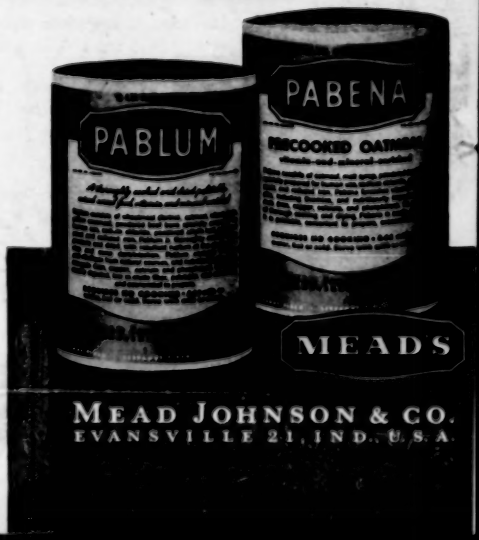

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